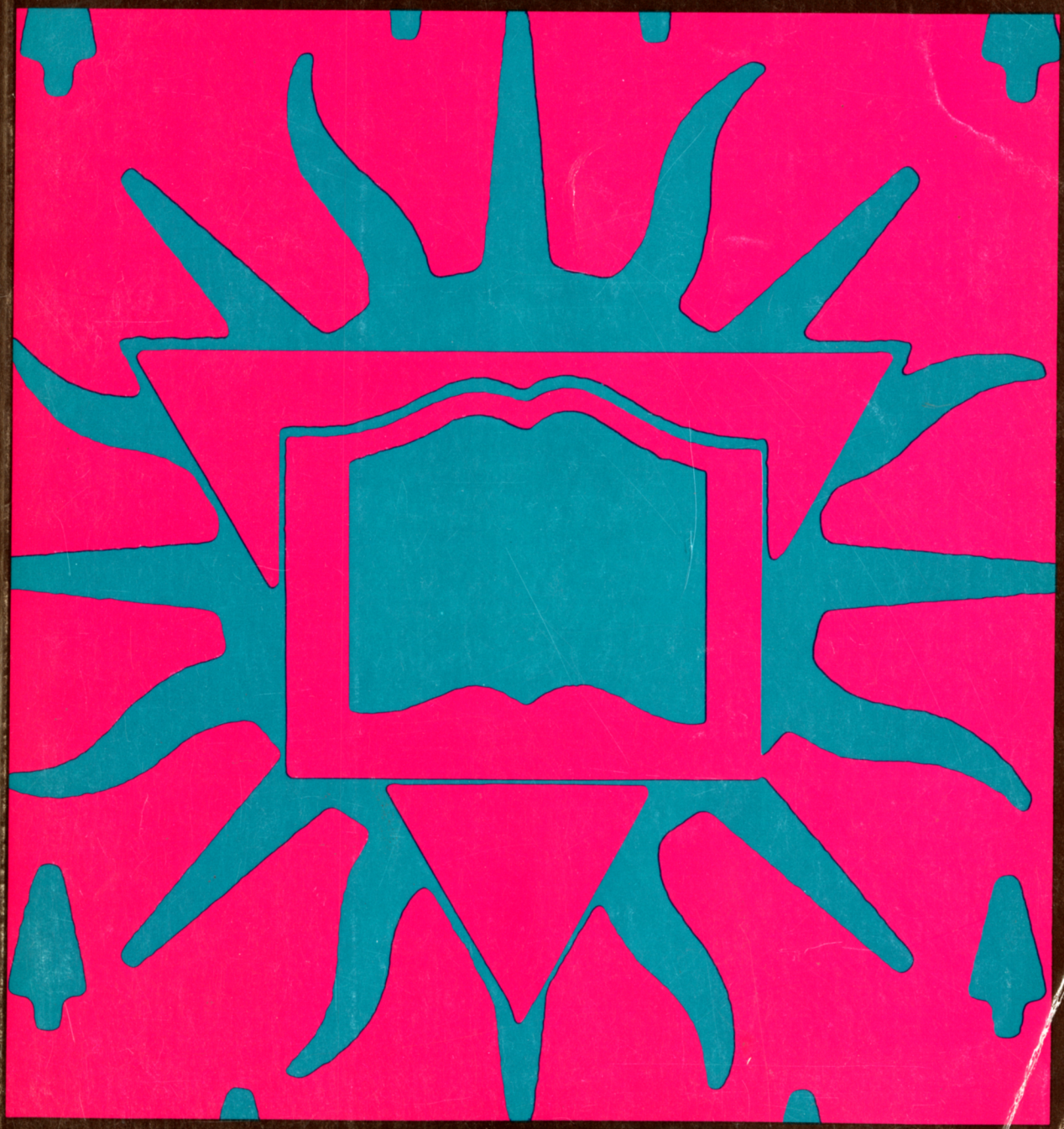
CONCORDIA UNIVERSITY

1983-84

UNDERGRADUATE CALENDAR



1983

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August

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November

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December

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Concordia University 1983-84

Price: $2.00

Depending on geographical location, mailing costs will be requested.

Loyola Campus
7141 Sherbrooke Street West
Montreal, Quebec
H4B 1R6

Sir George Williams Campus
1455 de Maisonneuve West
Montreal, Quebec
H3G 1M8

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This is the only official listing of undergraduate courses offered at Concordia University.

Please consult the index for a listing of those courses which were offered last Summer only, but are not a part of the continuing corpus of course offerings.

Not all courses listed in this Calendar are offered this year. Students are advised to consult the Registration Handbook, issued at Registration, for a time-table of courses offered.

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Concordia

Concordia University is located in downtown and west-end Montreal. The name of the University reflects its place within the community; it is drawn from the motto of the City of Montreal, "Concordia Salus".

The University has strong traditions in part-time education, and many of its students work full-time during the day.

Founded in 1974 with the merger of Loyola College and Sir George Williams University, the University now offers undergraduate programmes in four Faculties: Arts and Science, Commerce and Administration, Engineering and Computer Science, and Fine Arts. At the bachelor's level, the University offers the degrees of Bachelor of Administration, Bachelor of Arts, Bachelor of Computer Science, Bachelor of Education, Bachelor of Engineering, Bachelor of Fine Arts, Bachelor of Commerce and Bachelor of Science. Undergraduate level certificates are also awarded in a growing number of areas.

At the master's level, the University awards the degrees of Master of Arts, Master of Science, Master of Computer Science, Master of Engineering, Master of Fine Arts, Master in the Teaching of Mathematics, and Master of Business Administration.

Programmes leading to the degree of Doctor of Philosophy are offered in Administration, Art Education, Chemistry, Economics, Educational Technology, Engineering, History, Humanities, Physics, Psychology, and Religion.

The University also offers graduate diploma programmes in Accountancy, Advanced Music Performance Studies, Art Education, Art Therapy, Communication Studies, Community Politics and the Law, Early Childhood Education, English, History, Institutional Administration, Instructional Technology, Library Studies, Sports Administration, The Teaching of Mathematics, Theological, Religious, and Ethical Studies, and Writing/Translation.

Enrolment in the 1982-83 academic year was:

- Full-time undergraduate 10,359
- Part-time undergraduate 9,886
- Full-time graduate 1,365
- Part-time graduate 1,327
- Other (credit non-degree) 1,659

In addition to the programmes described in this calendar and in the Graduate Studies Calendar, the University offers a wide range of summer courses and programmes on both campuses. A separate publication listing summer offerings is published annually.

Libraries

The Concordia Library System comprises four libraries, containing a collection of over one million items. The Science and Engineering Library on the Sir George Williams Campus, and the Drummond Science Library on the Loyola Campus, house the University's collection of materials on the sciences and technology. The remainder of the collection, including materials in the humanities, social sciences, fine arts, and commerce, is housed in Sir George Williams' Norris Library and Loyola's Vanier Library. All students may use facilities on either campus.

The Library collection, which is growing at an average rate of 65,000 items per year, includes books, periodicals, government publications, technical reports, microforms, non-print (audio-visual) material, and special collections. Materials which are not found at Concordia may be borrowed through the Interlibrary Loan system, or used in another library in Montreal (upon presentation of a letter from a Concordia librarian). Through Interlibrary Loans, Concordia students also have access to the multi-million volume collection in the Center for Research Libraries. Upon request the Center will send materials from its collection to Concordia. Reference librarians will assist students in locating materials they need, whether that material is at Concordia or elsewhere.

Students wishing more complete information on their libraries, are invited to pick up a copy of *The Library Owner's Manual* which is available free of charge in all libraries.

Laboratories and Computing Services

The University has 100 laboratories on both campuses with modern equipment for teaching and research in Biology, Chemistry, Communication Studies, Computer Science, Engineering, Geography, Languages, Physics, Psychology and Statistics.

The Computer Centre provides computing services to the University community. Students enrolled in any discipline are entitled to the use of the Centre's facilities, which include over 100 timesharing terminals. The Centre maintains an extensive software and application library and provides programming assistance and advice.

Art Collection and Galleries

The Concordia University collection of art is housed on both campuses. Portions of the collection are displayed in public areas of the Loyola Campus and in the galleries and display areas of the Sir George Williams Campus. The collection comprises an extensive survey of modern Canadian paintings, drawings, graphic art, sculpture and minor art.

There are three main art galleries: The Weissman Gallery, Gallery One and Gallery Two, located on the mezzanine floor of the Henry F. Hall Building. There are also open-display areas on the same floor. There is a continuous programme of outside exhibitions and shows by students and faculty throughout the academic year. On occasion the galleries are also used for concerts, guest

lectures and other cultural events.

A fourth gallery displaying the work of Fine Arts students is located at the Dorchester Blvd. entrance to the Visual Arts Building.

Theatre, Music and Arts Studios

The Faculty of Fine Arts operates the Douglass Burns Clarke Theatre located in the Hall Building. It is a modern facility seating 380 people, and is used primarily for dramatic productions and musical performances. The 650-seat F.C. Smith Auditorium, located on the Loyola Campus, is used for a wide variety of activities, including cinema, theatre, and music performances. On the same campus, the Chameleon Theatre, a flexible teaching facility, serves theatre students.

Most of the specialized studios and workshops for undergraduate and graduate students are located in the Visual Arts Building.

Music students use ensemble rooms in the Refectory Building on the Loyola Campus, where a number of practice studios of various sizes are maintained. Performances are held in the Chapel, in the large ensemble rooms and, occasionally, in the D.B. Clarke Theatre.

Audio-Visual Facilities

Facilities available through the Audio-Visual Department include television studios and editing suites, closed-circuit cable networks, sound stages, language and learning laboratories, cinemas, film libraries, self-teaching study centres, conference and public-address systems, and production facilities for materials in audio, videotape, film, photographic and graphic art formats.

Portable items of equipment may be borrowed from the Department's equipment depots.

The AVISTA centres on each campus offer training and production resources for faculty, students and staff in the operation of equipment and the preparation of softwares.

Film Presentations

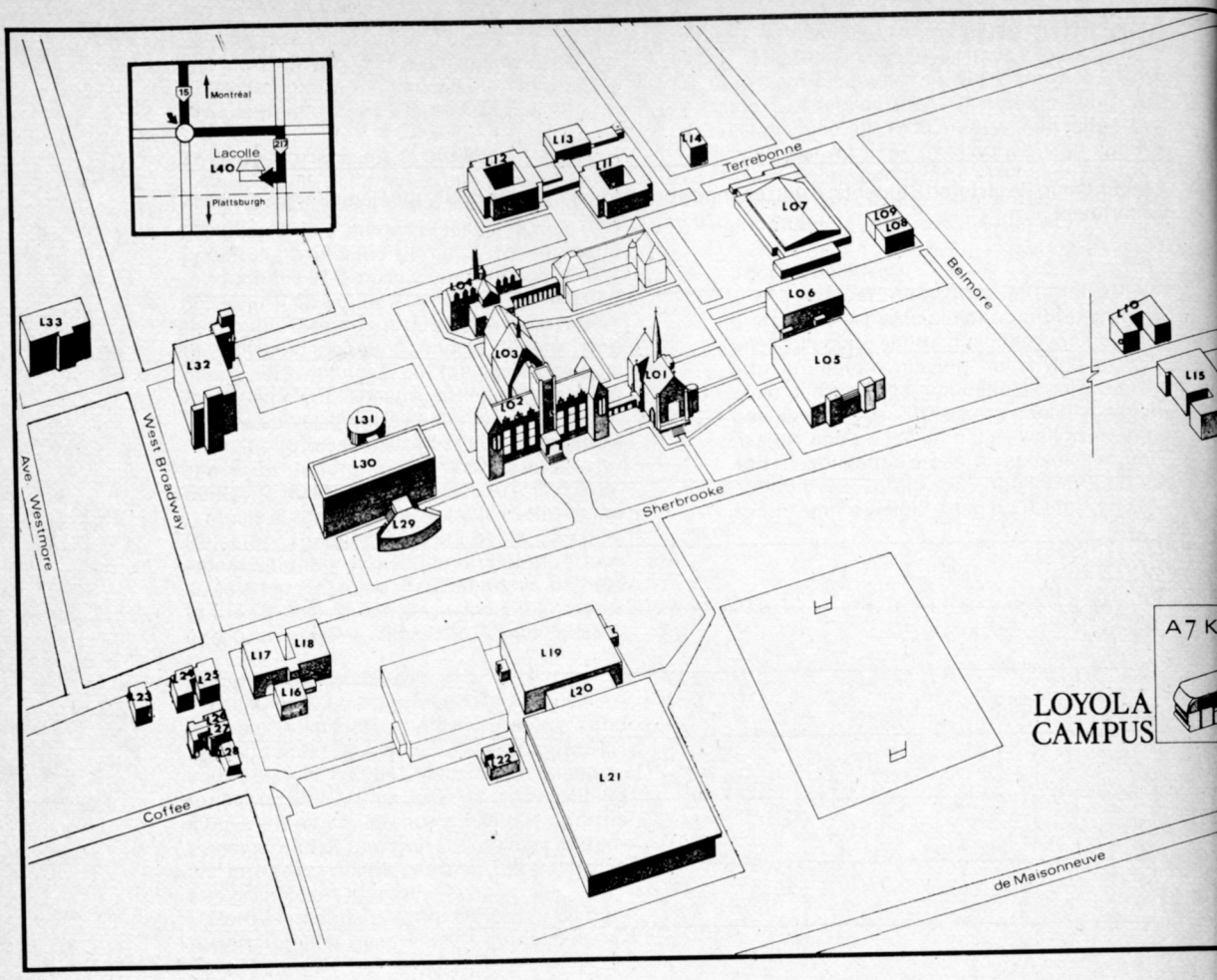
The University shows films in cinema halls on both campuses. At Sir George Williams, the Conservatory of Cinematographic Art, established in 1968, houses an important collection of films of historical and cultural value. Each year, it organizes a series of film festivals, which often involve appearances by important figures from the film world.

Sports Facilities

The University offers extensive programmes for participation in intramural and intercollegiate sports. Facilities include several full-length playing fields and a fully-equipped physical education centre on the Loyola Campus. The centre contains a gymnasium and an ice arena, as well as training and rehabilitation areas, an activities room, a combatives room for individual contact sports, and a weight-training room.

Appointments

A reminder to Registered Students: If you change your address, please notify the Registrar's Services Department.



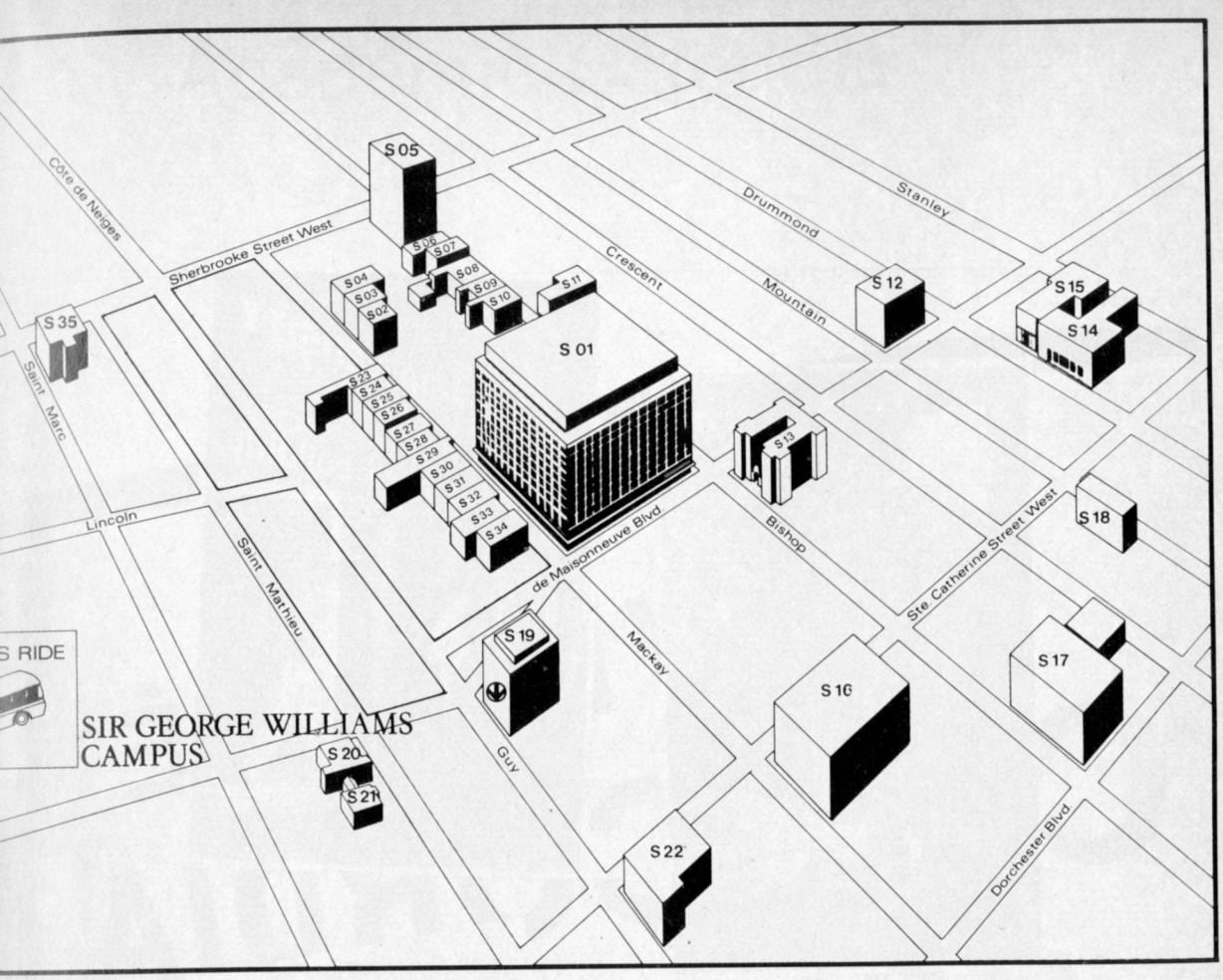
Loyola Campus

NUMERICAL KEY

L01	FC	7141 Sherbrooke o.	F. C. Smith Auditorium
L02	AD	7141 Sherbrooke o.	Administration Building
L03	CC	7141 Sherbrooke o.	Central Building
L04	RF	7141 Sherbrooke o.	Refectory Building
L05	VL	7141 Sherbrooke o.	Vanier Library
L06	SC	7141 Sherbrooke o.	Campus Centre
L07	PS	7141 Sherbrooke o.	Physical Services Bldg.
L08	BB	3502 Belmore	Belmore Building
L09	BH	3500 Belmore	Belmore House
L10	CH	6931-37 Sherbrooke o.	Centennial Building
L11	HA	7141 Sherbrooke o.	Hingston Hall 'A' Block
L12	HB	7141 Sherbrooke o.	Hingston Hall 'B' Block
L13	HC	7141 Sherbrooke o.	Hingston Hall 'C' Block
L14	TA	7079 Terrebonne	Terrebonne
L15	LH	6900 Sherbrooke o.	Langley Hall
L16	WB	2499/2501 West Broadway	West Broadway 1
L17	CL	7282 Sherbrooke o.	Cloran Building
L18	HK	7270 Sherbrooke o.	Hackett Building
L19	PG	7200 Sherbrooke o.	Physical Ed. — Gym.
L20	PA	7200 Sherbrooke o.	Physical Ed. — Admin.
L21	PE	7200 Sherbrooke o.	Physical Ed. — Rink
L22	PP	7200 Sherbrooke o.	Physical Ed. — Boiler
L23	RG	7328 Sherbrooke o.	Sherbrooke 1
L24	RC RD	7306/7308 Sherbrooke o.	Sherbrooke 2
L25	RA RB	7300/7302 Sherbrooke o.	Sherbrooke 3
L26	WE WF	2494/2496 West Broadway	West Broadway 2
L27	WC WD	2490/2492 West Broadway	West Broadway 3
L28	WG	2480 West Broadway	West Broadway 4
L29	DA	7141 Sherbrooke o.	Drummond Auditorium
L30	DS	7141 Sherbrooke o.	Drummond Science Bldg.
L31	DL	7141 Sherbrooke o.	Drummond Library
L32	BR	7141 Sherbrooke o.	Bryan Building
L33	TJ	4510 West Broadway	St. Ignatius School
L40	LC	Lacolle, Quebec	Lacolle Centre

ALPHABETICAL KEY

Administration Building	AD	7141 Sherbrooke o.	L02
Belmore Building	BB	3502 Belmore	L08
Belmore House	BH	3500 Belmore	L09
Bryan Building	BR	7141 Sherbrooke o.	L32
Campus Centre	SC	7141 Sherbrooke o.	L06
Centennial Building	CH	6931-37 Sherbrooke o.	L10
Central Building	CC	7141 Sherbrooke o.	L03
Cloran Building	CL	7282 Sherbrooke o.	L17
Drummond Auditorium	DA	7141 Sherbrooke o.	L29
Drummond Library	DL	7141 Sherbrooke o.	L31
Drummond Science Bldg.	DS	7141 Sherbrooke o.	L30
F. C. Smith Auditorium	FC	7141 Sherbrooke o.	L01
Hackett Building	HK	7270 Sherbrooke o.	L18
Hingston Hall 'A' Block	HA	7141 Sherbrooke o.	L11
Hingston Hall 'B' Block	HB	7141 Sherbrooke o.	L12
Hingston Hall 'C' Block	HC	7141 Sherbrooke o.	L13
Lacolle Centre	LC	Lacolle, Quebec	L40
Langley Hall	LH	6900 Sherbrooke o.	L15
Physical Ed. — Admin.	PA	7200 Sherbrooke o.	L20
Physical Ed. — Boiler	PP	7200 Sherbrooke o.	L22
Physical Ed. — Gym.	PG	7200 Sherbrooke o.	L19
Physical Ed. — Rink	PE	7200 Sherbrooke o.	L21
Physical Services Bldg.	PS	7141 Sherbrooke o.	L07
Refectory Building	RF	7141 Sherbrooke o.	L04
St. Ignatius School	TJ	4510 West Broadway	L33
Sherbrooke 1	RG	7328 Sherbrooke o.	L23
Sherbrooke 2	RC RD	7306/7308 Sherbrooke o.	L24
Sherbrooke 3	RA RB	7300/7302 Sherbrooke o.	L25
Terrebonne	TA	7079 Terrebonne	L14
Vanier Library	VL	7141 Sherbrooke o.	L05
West Broadway 1	WB	2499/2501 West Broadway	L16
West Broadway 2	WE WF	2494/2496 West Broadway	L26
West Broadway 3	WC WD	2490/2492 West Broadway	L27
West Broadway 4	WG	2480 West Broadway	L28



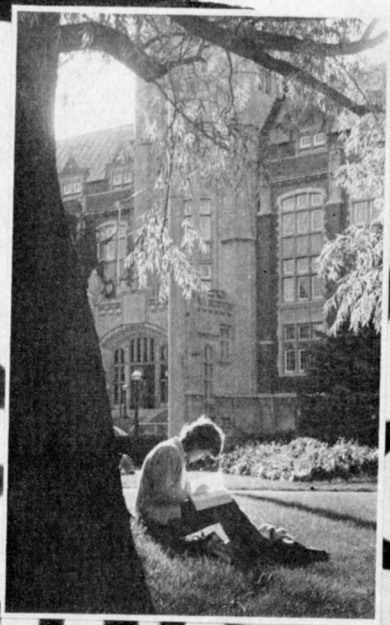
Sir George Williams Campus

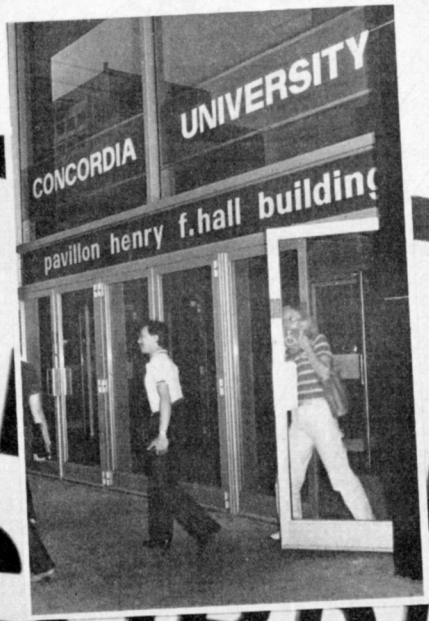
NUMERICAL KEY

S01	H	1455 de Maisonneuve o.	Henry F. Hall
S02	M	2135 Mackay	Annex M
S03	S	2145 Mackay	Annex S
S04	CI	2149 Mackay	Annex CI
S05	A	1420 Sherbrooke o.	Annex A
S06	MU	2170 Bishop	Annex MU
S07	B	2160 Bishop	Annex B
S08	K	2150 Bishop	Annex K
S09	D	2140 Bishop	Annex D
S10	MI	2120/2130 Bishop	Annex MI
S11	F	2085 Bishop	Annex F
S12	L	2015 Mountain	Shuchat
S13	BC	1463 Bishop	Bishop Court
S14	N	1435 Drummond	Kenneth E. Norris
S15	Y	1441 Drummond	YMCA
S16	C	1440 Ste. Catherine o.	Annex C
S17	VA	1395 Dorchester o.	Fine Arts
S18	MF	1230 Mountain	Bourget School
S19	GM	1550 de Maisonneuve o.	Annex GM
S20	CE	1822 de Maisonneuve o.	Victoria School
S21	GY	1822 de Maisonneuve o.	Victoria School
S22	BE	1249 Guy	Centre for Building Studies
S23	AR	2130 Mackay	Annex AR
S24	V	2110 Mackay	Annex V
S25	PR	2100 Mackay	Annex PR
S26	Z	2090 Mackay	Annex Z
S27	X	2080 Mackay	Annex X
S28	EN	2070 Mackay	Annex EN
S29	FA	2060 Mackay	Annex FA
S30	R	2050 Mackay	Annex R
S31	—	2040 Mackay	—
S32	T	2030 Mackay	Annex T
S33	P	2020 Mackay	Annex P
S34	Q	2010 Mackay	Annex Q
S35	DC	2305 St. Marc	Annex DC

ALPHABETICAL KEY

Annex A	A	1420 Sherbrooke o.	S05
Annex AR	AR	2130 Mackay	S23
Annex B	B	2160 Bishop	S07
Annex C	C	1440 Ste. Catherine o.	S16
Annex CI	CI	2149 Mackay	S04
Annex D	D	2140 Bishop	S09
Annex DC	DC	2305 St. Marc	S35
Annex EN	EN	2070 Mackay	S28
Annex F	F	2085 Bishop	S11
Annex FA	FA	2060 Mackay	S28
Annex GM	GM	1550 de Maisonneuve o.	S19
Annex K	K	2150 Bishop	S08
Annex M	M	2135 Mackay	S02
Annex MI	MI	2120/2130 Bishop	S10
Annex MU	MU	2170 Bishop	S06
Annex P	P	2020 Mackay	S33
Annex Q	Q	2010 Mackay	S34
Annex PR	PR	2100 Mackay	S25
Annex R	R	2050 Mackay	S30
Annex S	S	2145 Mackay	S03
Annex T	T	2110 Mackay	S24
Annex V	V	2030 Mackay	S32
Annex X	X	2080 Mackay	S27
Annex Z	Z	2090 Mackay	S26
Bishop Court	BC	1463 Bishop	S13
Bourget School	MF	1230 Mountain	S18
Centre for Building Studies	BE	1249 Guy	S22
Fine Arts	VA	1395 Dorchester o.	S17
Henry F. Hall	H	1455 de Maisonneuve o.	S01
Kenneth E. Norris	N	1435 Drummond	S14
Shuchat	L	2015 Mountain	S12
Victoria School	CE	1822 de Maisonneuve o.	S20
Victoria School	GY	1822 de Maisonneuve o.	S21
YMCA	Y	1441 Drummond	S15
—	—	2040 Mackay	S31




CONCORDIA
UNIVERSITY
pavillon henry f.hall building

11 Academic Calendar

11 Academic Calendar

The Academic Calendar is subject to change without notice. Effort will be made to publicize revisions.

Regular Session — 1983-1984

1983

MARCH	Tuesday, March 1	Last day for applications Full-time Day Regular Session 1983-84.
	By appointment.	Preregistration course selection begins.
	Friday, March 4	Last day for academic withdrawal from two-term and Winter-term courses.
APRIL	Friday, April 1	Last day for submission of late-completion work for courses ending in December 1982.
	Friday, April 1	Good Friday - University closed.
	Monday, April 4	Easter Monday - University closed.
	Saturday, April 16	Last day of classes - Regular Session 1982-83.
	Saturday, April 16	Examinations begin.
MAY	Sunday, May 1	See below for Summer Session 1983 tentative calendar.
	Tuesday, May 3	Examinations end.
JUNE	To be announced.	Convocations.
	Wednesday, June 15	Last day for special and supplemental examination applications for courses taken during the Regular Session 1982-83.
	Wednesday, June 15	Last day for applying for late completion for courses ending in April 1983.
	Friday, June 17	Last day for submission of Preregistration forms for former students - Regular Session 1983-84.
	Thursday, June 23	Last day for submission of Preregistration forms for students accepted through the Admissions Office - Regular Session 1983-84.
JULY	Friday, July 15	Last day for applying for degrees and certificates for Fall 1983.
	Monday, July 25	Special and supplemental examinations begin - Regular Session 1982-83.
AUGUST	Monday, August 1	Last day for submission of late-completion work for courses ending in April 1983.
	Wednesday, August 3	Special and supplemental examinations end - Regular Session 1982-83.
	Monday, August 15	Last day for Tuition Fee Payment for preregistered students.
	Friday, August 19	Special course-change period for preregistered students begins.
	Monday, August 22	Special course-change period for preregistered students ends.

	Wednesday, August 24	General Registration begins for non-preregistered students (specific dates to be published in the class schedule).
SEPTEMBER	Thursday, September 1	General Registration ends.
	Monday, September 5	Labour Day - University closed.
	Tuesday, September 6	Classes begin - Day and Evening Regular Session.
	Tuesday, September 6	Regular course-change period begins. (Specific dates to be announced.)
	Friday, September 23	Last day for Special and Supplemental examination applications for courses taken during the Summer Session 1983.
OCTOBER	Saturday, October 1	Last day for application for late completion for courses taken during the Summer Session 1983.
	Monday, October 10	Thanksgiving Day - University closed - no classes
	Saturday, October 15	Special and Supplemental examinations for Summer Session 1983.
	Friday, October 28	Last day for academic withdrawal from Fall-term courses.
NOVEMBER	Tuesday, November 1	Last day for submission of late-completion work for Summer Session courses 1983.
DECEMBER	Monday, December 5	Last day for classes - Fall Term.
	Tuesday, December 6	Make-up day for all classes - Instructors requested to contact Scheduling Office for room bookings.
	Wednesday, December 7	Examinations begin.
	Wednesday, December 7	Registration for Winter Term begins (for students not yet registered for 1983-84 courses).
	Thursday, December 8	Registration for Winter Term ends.
	Thursday, December 22	Examinations end.

1984

JANUARY	Thursday, January 5	Regular course-change period begins. (Specific dates to be announced.)
	Monday, January 9	Classes begin - Winter Term.
	Sunday, January 15	Last day for applying for degrees and certificates for Spring 1984.
FEBRUARY	Wednesday, February 1	Last day for applications for Fall-term supplemental and special examinations - Graduating Students.
	Wednesday, February 1	Last day for applying for late-completion for courses ending in December 1983.
	Saturday, February 18	Fall-term supplemental and special examinations - Graduating Students.
	Monday, February 20	Mid-term break begins.
	Friday, February 24	Mid-term break ends.
MARCH	Tuesday, March 1	Last day for applications Full-time Day Regular Session 1984-85.
	By appointment.	Preregistration course selection begins.
	Friday, March 2	Last day for academic withdrawal from two-term courses and Winter-term courses.

APRIL	Sunday, April 1	Last day for the submission of late-completion work for courses ending December 1983.
	Saturday, April 14	Last day of classes - Regular Session 1983-84.
	Saturday, April 14	Examinations begin.
	Friday, April 20	Good Friday - University closed.
	Monday, April 23	Easter Monday - University closed.
MAY	Monday, May 7	Examinations end.
JUNE	To be announced.	Convocations.

NOTE: For the information of instructors planning assignment deadlines, class tests, etc., and for persons scheduling meetings, the dates of the major Jewish Holy Days for 1983-84 are set out below:

Rosh Hashanah	Thursday, September 8 and Friday, September 9, 1983.
Yom Kippur	Saturday, September 17, 1983.
Sukkoth	Thursday, September 22 and Friday, September 23, 1983. Thursday, September 29 and Friday, September 30, 1983.
Passover	Tuesday, March 29 and Wednesday, March 30, 1983. Monday, April 4 and Tuesday, April 5, 1983. Tuesday, April 17 and Wednesday, April 18, 1984. Monday, April 23 and Tuesday, April 24, 1984.

Observance of the Holy Day commences on the preceding evening at sunset.

Ten-Week Summer Session - 1983 (Day and Evening Classes)

MAY	Monday, May 9	Classes begin.
JULY	Wednesday, July 27	Examinations end.

Six-Week Summer Session - 1983 (Day Classes Only)

JULY	Monday, July 5	Classes begin.
AUGUST	Friday, August 12	Classes end.

12 Faculty & Administration

12 Faculty and Administration

The following entries are in effect for the 1982-83 academic year.

12.1 BOARD OF GOVERNORS

W.E. McLaughlin, *Chancellor*
D.W. McNaughton, *Chairman*
B.J. Lande, *Vice-Chairman*
P.M. McEntyre, *Vice-Chairman*
A. Graham, s.j., *Secretary*
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R.W. Breen
J.S. Daniel
J. Dinsmore
G.T. Fisher
C. Gabriel-Lacki
R.L. Grassby
R.K. Groome
G. Hirsh
S. Hoecker-Drysdale
M. Hogben
S. Huza
M. Laroche
L.I. MacDonald
L. Mancini
G. Martin
P.E. Martin, Jr.
M.B. Mulroney
G. Murray
S. Murray
J.W. O'Brien, *Rector*
J.J. Pepper
T.S. Sankar
H. Seltzer
K. Waters

12.2 SENATE

J.W. O'Brien, *Chairman*
R. Breen, *Vice-Chairman*
J. Daniel, *Vice-Chairman*
J. Noonan, *Secretary*
P. Albert
A. Antoniou
P. Arnkvarn
B. Barbieri
A. Broes
J.P. Brunet
W. Byers
J. Chaikelson
H. de Romer
M. Despland
P. d'Hollander
J. Drysdale
S. Dubas
G. Ellement
A. Emery
H. Famira
T. Fenwick
S. French
S. Friedland
J.C. Giguère
W. Gilsdorf
P. Gott
J. Griffin
F. Griffiths
A. Hamalian
L. Jankowski
S. Kert
W. Kovalchuk
S. Labrosse
H. Ladd
J. Locke
F. Longpré
M. Malik
S. McEvenue
G. Murray
S. Murray
M. Padowicz
A. Page
S. Paul
T. Radhakrishnan
M. Rainville
H.B. Ripstein
A. Ross
R.M. Roy
W. Schiff
P. Simon
W. Sims
M. Singer
M. Snow
M. Speranzo
M.N.S. Swamy
D. Taddeo
M. Vipond
J.H. Whitelaw
R.O. Wills
G.D. Xistris

12.3 COUNCIL OF THE FACULTY OF ARTS AND SCIENCE

M. Singer, *Provost, Division IV, Chairman*
D. Taddeo, *Dean, Division I*
J.S. Chaikelson, *Dean, Division II*
R. Roy, *Dean, Division III*
M. Osborne, *Secretary*
C. Bertrand
K. Bindon
R. Breen, *Vice-Rector, Academic*
A. Broes
U. Comtois
D. Dicks
R. Diubaldo
J. Doyle
S. Ferguson
A. Galler
P. Gott
J. Griffin
C.S. Kalman

E. Keirstead
A.M. Ketter
K. Kusano
B. Lewis
F. MacLeod
A. Marinakis
D.J. McDougall
S. McEvenue
A. Megann
M. Mingarelli
G. Newsham
J.W. O'Brien, *Rector*
A. Okwudi
M. Oppenheim
R. Pallen
B.M. Petrie
J. Princz
H. Proppe
E. Raudsepp
K. Riener
A. Ross
J. Ryan
B. Sahni
L. Sanders
O. Schwelb
H. Shulman
M. Squires
G. Taggart
M. Taylor
G. Trudel
J. Young
1 Faculty member (to be elected)
9 student members (to be elected)

12.4 COUNCIL OF THE FACULTY OF COMMERCE AND ADMINISTRATION

P. Simon, *Chairman*
K. Adams
C. Allard
S. Alvi
S. Appelbaum
K. Argheyd
M. Armstrong
M. Bergier
P. Brunet
R. Cadman
A. Crissali
R. Curnew
J. Daniel
E. Douglas
L. Feijoo
P. Filion
S. Finklestein
S. French
T. Herbert
G. Johns
P. Korsos
W. Kovalchuk
M. Laroche
J.F. Lefebvre
E. Ludgen
D. MacDonald
H. Mann
K.L. McGown
J.W. O'Brien, *Rector*
R. Oppenheimer
P. Pasold
N. Passoretti
C. Patterson
K. Pidgeon
P. Pitsiladis
K. Riener
H. Ripstein
C. Ross
C. Sandblom
R. Srinivasan
D. West
R. Wills
1 Arts and Science Representative (to be announced)
1 Computer Science Representative (to be announced)

12.5 COUNCIL OF THE FACULTY OF ENGINEERNG AND COMPUTER SCIENCE

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J.C. Giguère, *Secretary*
A. Antoniou
J.W. Atwood
R.B. Bhat
B.B. Bhattacharyya
J. Daniel
R. De Mori
B.C. Desai
E.J. Doedel
T. DuBoyce
P.P. Fazio
C. Goldman
R. Guy
V.S. Hoa
Z. Jirkovsky
C. Lachance
C. Lam
B.A. Lombos
R. Martin
J.W. O'Brien, *Rector*
M.O.M. Osman
R.V. Patel
H.B. Poorooshasb
T.S. Sankar
S. Simon
M. Snow
C.Y. Suen
C. Trueman
R.W. White
G.D. Xistris
Z.A. Zielinski
2 graduate students (to be announced)

12.6 COUNCIL OF THE FACULTY OF FINE ARTS

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K. Adams
D. Andrus
J. Belisle
R. Bigelow
W. Bottenberg
D. Childs
J. Daniel
C. Ellison
M. Falsetto
F. Filion
J. Fox
S. Friedland
S. Hudson

B. Lagace
E. Langley
G. Molinari
J. O'Brien, *Rector*
D. Pariser
R. Parker
I. Sendek
L. Sherman
N. Springford
K. Tweedie
N. Wagner
B. Wainwright
2 part-time instructors (to be announced)
6 student members (to be announced)
2 undergraduates from the Division of Visual Arts (to be announced)
2 undergraduates from the Division of Performing Arts (to be announced)
2 graduate students (to be announced)

12.7 CONCORDIA COUNCIL ON STUDENT LIFE

R. Breen, *Chairman*
D. Boisvert, *Secretary*
D. Arfin
J. Bird
B. Counihan
D. Danson
E. Enos
J. Freed
N. Friedman
R. Gaudet
P. Gott
G. Hirsh
J. Medrzycki
A. Rochette
J. Sproule
R. Swedburg
M. Taylor
M. Terho

12.8 OFFICERS OF THE ADMINISTRATION

RECTOR AND VICE-CHANCELLOR:
John W. O'Brien, PhD, DCL, LLD
ASSOCIATE VICE-RECTOR, ACADEMIC:
J.H. Whitelaw, MA
EXECUTIVE ASSISTANT TO THE RECTOR:
F. Michael Sheldon, MA
SECRETARY, BOARD OF GOVERNORS:
A. Graham, s.j., MA, STL
SECRETARY, SENATE:
John Noonan, BSc
UNIVERSITY DEVELOPMENT OFFICER:
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J.S. Daniel, MA DèsSc
ASSOCIATE VICE-RECTOR, RESEARCH:
Michel Despland, ThD
DEAN, COMMERCE AND ADMINISTRATION:
Pierre Simon, PhD
ASSOCIATE DEAN:
G.R. Curnew, MBA, CA
ASSOCIATE DEAN:
R.O. Wills, MBA
ASSISTANT DEAN:
L.J. Boyle, PhD
DEAN, ENGINEERING:
M.N.S. Swamy, PhD
ASSOCIATE DEAN:
J.C. Giguère, PhD
ASSISTANT DEAN:
J.W. Atwood, PhD
ASSISTANT DEAN:
G.D. Xistris, MEng, DScA
DEAN, FINE ARTS:
C.A. Emery, MA
ASSISTANT DEAN:
R.J. Parker, PhD
ASSISTANT DEAN:
S. Friedland, MA
DEAN, GRADUATE STUDIES:
S.G. French, PhD

VICE-RECTOR, ACADEMIC:
Russell Breen, PhD
DEAN, ARTS AND SCIENCE, DIVISION I:
D. Taddeo, PhD
ASSISTANT DEAN:
V. Zeman, PhD

DEAN, ARTS AND SCIENCE DIVISION II:
J. Chaikelson, PhD
ASSOCIATE DEAN:
R. Coyte, MA
DEAN, ARTS AND SCIENCE, DIVISION III:
R.M. Roy, PhD
ASSOCIATE DEAN:
R.H. Pallen, PhD
PROVOST, ARTS AND SCIENCE:
M. Singer, PhD
ASSISTANT PROVOST:
T. Gray, PhD
ASSISTANT DEAN, ARTS AND SCIENCE:
J. Drysdale, PhD
ASSISTANT DEAN, ARTS AND SCIENCE:
L. Van Toch, MA
ASSISTANT VICE RECTOR AND DIRECTOR OF CONTINUING EDUCATION:
Douglas Potvin, EdD

DIRECTOR OF GUIDANCE:
J.A. Sproule, MPsSc
DIRECTOR OF ATHLETICS:
E. Enos, BSc, MEd, EdD
DEAN OF STUDENTS:
Brian T. Counihan, BA, MEd

VICE-RECTOR, ADMINISTRATION AND FINANCE:
Graham Martin, MScEng
ASSISTANT VICE-RECTOR AND REGISTRAR:
Kenneth D. Adams, BSc LMus
ASSISTANT VICE-RECTOR AND DIRECTOR OF LIBRARIES:
Paul-Emile Filion, s.j., MS, DUL, LLD
ASSISTANT VICE-RECTOR, RELATIONS AND AUDIT:
André J. Laprade, BEng
ASSISTANT VICE-RECTOR, PHYSICAL
Jean-Pierre Pétolas, BSc
ASSISTANT VICE-RECTOR AND TREASURER:
W.G. McManus

ASSISTANT VICE-RECTOR, ADMISSIONS AND LIAISON:
William J. Shore, BA
DIRECTOR OF ADMISSIONS:
Thomas E. Swift, BA
UNIVERSITY LEGAL COUNSEL:
Jean-Paul Dufour, BA, BComm, BCL
DIRECTOR, ANCILLARY SERVICES:
Douglas Devenne, BA
DIRECTOR, HUMAN RESOURCES:
Raymond Doutre, BSc
DIRECTOR, COMPUTER CENTRE:
Ivan Fuchs, BSc

DIRECTOR, INTERNATIONAL STUDENTS AND FOREIGN STUDENT EXCHANGE, PUBLICATIONS, AND SPECIAL ASSISTANT TO THE VICE-RECTOR:
Grendon Haines, BA, BPaed
DIRECTOR, INSTITUTIONAL RESEARCH OFFICE:
F. Douglas Hamblin, BSc, MSc, FLMechE, PEng
DIRECTOR, AUDIO-VISUAL DEPARTMENT:
Bernard B. Queenan, MA, MEd

12.9 FACULTY FULL TIME

ABRAMI, P., BA *Bard Coll.*, MA PhD *Manit.*, *Associate Professor of Education*
ACHESON, P., BA *Lond.*, MS PhD *Indiana*, *Assistant Professor of Applied Linguistics*
ADAMS, G., BA MA *Tor.*, PhD *Chic.*, *Associate Professor of History*
ADAMS, L., BMus *Boston*, Cert *Royal Conserv.*, *Assistant Professor of Fine Arts (Music)*
ADAMSON, A.H., BA *Manit.*, PhD *Lond.*, *Professor of History*
ADLER, L.S., BA *Sir G. Wms.*, MA *McG.*, SM *M.I.T.*, *Associate Professor of Mathematics*
ADLEY, T.J., BSc *Sir G. Wms.*, PhD DIC *Lond.*, *Associate Professor of Chemistry*
AHMAD, J., BA *Alig.*, MS *Pitt.*, PhD *M.I.T.*, *Professor of Economics*
AHMAD, M.M., MA *Punj.*, MA PhD *Chic.*, *Associate Professor of Philosophy*
AHMAD, M.O., BEng *Sir G. Wms.*, BSc *Alld.*, DEng *C'dia.*, *Assistant Professor of Electrical Engineering*
AHSAN, S.M., BA *Dacca*, MA *Essex*, PhD *McM.*, *Associate Professor of Economics*
AIKEN, S.R., BA *Belf.*, MA *McM.*, PhD *Penn.*, *Associate Professor of Geography*
ALAGAR, V.S., BA MSc *Madr.*, MA *N.Y. State*, PhD *McG.*, *Associate Professor of Computer Science*
ALBERT, P., BSc PhD *New Br.*, *Associate Professor of Biology*
ALI, S.T., BSc MSc *Dacca*, MS PhD *Roch.*, *Visiting Assistant Professor of Mathematics*
AL-JASSINI, A., BA *Loy. (Montr.)*, MA *McG.*, *Lecturer in Political Science*
ALLEN, C., BA *Roch.*, PhD *Claremont*, *Associate Professor of Philosophy*
ALLEN, R., MFA MA *Cornell*, *Associate Professor of English*
ALLISON, R.R., BA MA *Calif.*, PhD *Flor. State*, *Assistant Professor of Fine Arts (Theatre)*
ALVI, S.A., BA MA *Karachi*, PhD *Colo.*, *Associate Professor of Economics*
AMIT, Z., BA PhD *McG.*, *Professor of Psychology*
ANAND, K.K., BA *Punj.*, MA *Delhi*, PhD *N.Y.*, *Associate Professor of Mathematics*
ANASTASOPOULOS, A., BA *Athens*, MA PhD *Roch.*, *Associate Professor of Economics*
ANDERSON, J.M., MA *Dund.*, MSc *Alta.*, *Assistant Professor of Geography*
ANDERSON, P.D., BA MSc *W. Ont.*, PhD *Ore. State*, *Associate Professor of Biology*
ANDRES, D.H., BA MA *Texas*, PhD *Wat.*, *Associate Professor of Psychology*
ANDRUS, D.F.P., BA MA *Tor.*, *Associate Professor of Fine Arts (Art History)*
ANGEL, R.B., MA PhD *McG.*, *Professor of Philosophy*
ANGELL, H.M., BA *Sir G. Wms.*, MA *McG.*, *Associate Professor of Political Science*
ANTOLIN, F., BA *Léon-Oviedo, Spain*, LèsL *Madrid*, MA *Mexico*, DèsL *Madrid*, *Associate Professor of Modern Languages (Spanish)*
ANTONIOU, A., BSc(Eng) PhD *Lond.*, Ing, *Professor of Electrical Engineering*
ANVARI, M., BEng *McM.*, MBA *C'dia.*, MS PhD *Case Western Res.*, *Associate Professor of Quantitative Methods*
APPELBAUM, S., BS *Temple U.*, MA *St. Jos.*, PhD *Ott.*, *Associate Professor of Management*
ARBUCKLE-MAAG, T.Y., BA *Manit.*, PhD *Tor.*, *Professor of Psychology*
ARGHEYD, K., MBA *Iran Centre for Mana. Studies* PhD *Harv.*, *Assistant Professor of Management*
ARMSTRONG, M., BA BEd *Alta.*, MA *McG.*, *Professor of Economics*
ARNOPOULOS, P.J., BSC BA *Sir G. Wms.*, MA *N.Y.*, MA *Col.*, *Associate Professor of Political Science*
ASHTAKALA, B., BE *Madr.*, ME *Roor.*, PhD *Wat.*, *Associate Professor of Civil Engineering*
ASHTAKALA, S., BSc *Mad.*, PhD *Tor.*, *Associate Professor of Biology*
ATHANASSAKOS, A., BA *Grad. Sch. of Ind'l. Studies, Thessaloniki, Greece*, MA *York*, *Sessional Lecturer in Economics*
ATWOOD, J.W., BEng *McG.*, MASc *Tor.*, PhD *Ill.*, *Associate Professor of Computer Science*
AUCHINACHIE, G.M., BA *Br. Col.*, MA *Tor.*, PhD *Montr.*, *Associate Professor of English*
AUSTIN, K., BMus MMA *McG.*, *Assistant Professor of Fine Arts (Music)*

BABA, V.V., BEng *Madr.*, MBA *W. Ill.*, PhD *Br. Col.*, *Associate Professor of Management*
BABARIK, P., BA MA *Tor.*, PhD *Chic.*, *Associate Professor of Psychology*
BALDWIN, M., BSc MSc Tas., Associate Professor of Chemistry
BARAKETT-BRAND, J., BA Sir G. Wms., MA *McG.*, PhD *Montr.*, *Assistant Professor of Education*
BARAN, B., BSc McG., MSc *Wayne State U.*, *Sessional Lecturer in Quantitative Methods*
BARBIERI, B., BA Montr., MBA *Col.*, BCL LLB *McG.*, *Assistant Professor of Marketing*
BARIBEAU, J., BA MA PhD Ott., Assistant Professor of Psychology
BARKMAN, B., BA Middlebury Coll., PhD *Georgetown*, *Associate Professor of Applied Linguistics*
BARLOW, I.M., BA Wales, MA *Cinc.*, PhD *McG.*, *Associate Professor of Geography*

FULL TIME 12.9

BARON, L.J., BA McG., MA *Mich. State,* PhD *Tor., Associate Professor of Education*

BARRETT, L.R., BA Leeds, PhD *Calg., Assistant Professor of Education*

BARTEL, H., BA W. Ont., MBA *Tor.,* MA PhD *Indiana, Visiting Associate Professor of Quantitative Methods*

BARTHO, A., Dip Ecole Nor Sup St. Cloud, Sessional Lecturer in Etudes Françaises

BARTON, C.R., BA MA Yale, PhD *N.Y., Associate Professor of Classics and Linguistics*

BAUER, J.H., BA *Sir G. Wms.,* MA PhD *Manit., Associate Professor of Psychology*

BAYLIN, E., BA MBA *McG., Lecturer in Quantitative Methods*

BAYNE, C.S., MA *Br. Col.,* PhD *McG., Associate Professor of Quantitative Methods*

BECKMAN, C., AA *Stockton Coll., Calif.,* AB MA *Calif.,* PhD *Rutgers, Associate Professor of Biology*

BEISSEL, H.E., BPhil *Cologne,* MA *Tor., Professor of English*

BELINSKY, M.M., BSc MSc *McG., Associate Professor of Mathematics*

BELISLE, J., BA MA *Montr., Assistant Professor of Fine Arts (Art History)*

BELKIN, R., BA *Sir G. Wms.,* PhD *Montr., Professor of English*

BELMORE, N., AB *Randolph-Macon,* MS PhD *Georgetown, Professor of Linguistics*

BERGIER, M.J., MBA PhD *SUNY, Buffalo, Associate Professor of Marketing*

BERNARD, R., BS MS *Tenn.,* PhD *Wash., Assistant Professor of Education*

BERTRAND, C.L., BA *Western Wash.,* MA *Ore.,* PhD *Wis., Associate Professor of History*

BESSNER, L., BComm *McG.,* CA, *Professor of Accountancy*

BHARGAVA, V.K., BSc MSc PhD *Qu., Associate Professor of Electrical Engineering*

BHAT, R.B., BEng *Mys.,* MTech PhD *I.I.T., Assistant Professor of Mechanical Engineering*

BHATNAGAR, J.K., BSc LLB *Agra,* MA PhD *Lond., Professor of Education*

BHATTACHARYYA, B.B., BTech MTech *Kharagpur,* PhD *N.S.T.C., Professor of Electrical Engineering*

BIGELOW, R., BFA *Choinard Art Inst., Assistant Professor of Fine Arts (Sculpture and Crafts)*

BINDON, K., BA *Sir G. Wms.,* MA PhD *Qu., Assistant Professor of History*

BIRD, F.B., BA BD *Harv.,* PhD *U.T.S.(N.Y.), Associate Professor of Religion*

BIRD, P.H., BSc PhD *Sheff., Associate Professor of Chemistry*

BLACH, A.E., BSc MEng *Sir G. Wms.,* Ing, *Assistant Professor of Mechanical Engineering*

BOBETIC, M.V., MA *Zagreb,* PhD *Wat., Associate Professor of Mathematics*

BODE, F.A., BA *U.C.L.A.,* MA PhD *Yale, Associate Professor of History*

BOOM, H.J., BSc MSc *Manit.,* PhD *Wat., Assistant Professor of Computer Science*

BORDAN, J., BEng MSc *McG.,* Ing MEIC, *Professor of Engineering*

BOSWALL, M.A., BSc *Dal., Associate Professor of Mathematics*

BOTTENBERG, W., BMus *Edmonton,* MMus DMA *Cinc., Associate Professor of Fine Arts (Music)*

BOYARSKY, A.J., BEng ME PhD *McG., Professor of Mathematics*

BOYD, G. McL., BSc *Car.,* MSc *Sask.,* PhD *Br. Col., Professor of Education*

BOYLE, L., BA BComm *Montr.,* MA *McG.,* PhD *Maryland, Associate Professor of Finance*

BREEN, Rev. R.W., BA BTh STL *Montr.,* MS *Fordham,* PhD *Stras., Associate Professor of Theological Studies*

BRENDER, W.J., BA MSc PhD *McG., Associate Professor of Psychology*

BRESLAW, J.A., BA MA *Camb.,* PhD *U. Calif. (Berkeley), Associate Professor of Economics*

BRETON, G., BA *Manit.,* MA *Montr.,* PhD *Mich., Associate Professor of Psychology*

BRIAN, M., MA *Oxf.,* PhD *Montr., Associate Professor of English*

BRIAN, M.A., BA *Tor.,* MA *Bryn-Mawr, Associate Professor of Mathematics*

BRINK, G., BComm *Sir G. Wms.,* MBA *W. Ont., Professor of Management*

BRODY, J., MSc *Charles, Associate Professor of Mathematics*

BROES, A., BA *Manhattan Coll.,* MA *Col.,* PhD *Pitt., Associate Professor of English*

BROSS, M., BA MA PhD *Manit., Associate Professor of Psychology*

BROWN, D., AB *Xavier,* PhD *Tübingen, Associate Professor of Classics*

BRUNE, A., BA *N.Y.,* MA *Iowa, Associate Professor of English*

BRUNET, J.P., BComm *Montr.,* MBA *Qu., Assistant Professor of Management*

BRUSSEL, E.M., BA *Hobart Coll.,* MA *DePauw (Indiana),* PhD *New Sch. for Social Research (N.Y.), Associate Professor of Psychology*

BUCKLEY, A.G., BSc *Calg.,* MSc *Alta.,* PhD *Br. Col., Associate Professor of Mathematics*

BUCKNER, H.T., BS *Louisville,* MA PhD *Calif., Associate Professor of Sociology*

BUELL, J., BA *Loy. (Montr.);* MA PhD *Montr., Professor of Communication Studies*

BUI, T.D., BASc *Ott.,* MEng *Car.,* PhD *York, (Can.), Associate Professor of Computer Science*

BUTOVSKY, M., BA *Sir G. Wms.,* MA *McG., Professor of English*

BYERS, J., BEd *McG.,* MA *Imm. Heart Coll., Lecturer in Fine Arts (Art Education)*

BYERS, W.P., BSc MSc *McG.,* PhD *Calif., Associate Professor of Mathematics*

BYRNES, T., BA *Antioch,* MA *C'dia., Sessional Lecturer in English*

CABATOFF, K.H., BA MA *McG.,* DPhil *Sus., Associate Professor of Political Science*

CALLIER, P., BA MA *Namur,* PhD *S. Fraser, Assistant Professor of Economics*

CARTER, S.I., BA MA *Tor.,* MEd EdD *Mass., Associate Professor of Applied Social Science*

CASEY, Rev. S.C., s.j., BA BPaeD *Manit.,* PhL STL *Imm. Conception,* MA PhD *McG., Associate Professor of Classics*

CATRY-VERRON, M.J., BA *Lille,* MA *Mt. Holyoke, Associate Professor of Etudes Françaises*

CAWLEY, R., BA *Manit.,* MS *Flor., Assistant Professor of Applied Social Science*

CAZALET, J.T., BA *Brooklyn Coll.,* MFA *Yale, Associate Professor of Fine Arts (Theatre)*

CHAIKELSON, J.S., MA MSc PhD *McG., Associate Professor of Psychology*

CHALK, F.R., BS MS PhD *Wis., Associate Professor of History*

CHAN, K., BA *Alta.*, MA *W.Ont.*, PhD *York, Assistant Professor of Applied Social Science*

CHARLAND, M., BA *McG.*, MS *Iowa, Lecturer in Communication Studies*

CHARLTON, D.E., BSc *Durh.*, PhD *Sask., Associate Professor of Physics*

CHARPENTIER, G., BA LèsL MA *Laval*, DèsL *Sher., Associate Professor of Etudes Françaises*

CHAUBEY, Y.P., BSc *Ban.*, MA *Roch.*, MStat *Indian Statistical Inst.*, PhD *Roch., Associate Professor of Mathematics*

CHENG, R.M.H., BSc Eng *H.K.*, MSc *Manc.*, PhD *Birm., Professor of Mechanical Engineering*

CHILDS, D.J., BA *Iowa*, MA *U. Calif. (San Jose)*, MFA *Indiana, Assistant Professor of Fine Arts (Theatre)*

CHODAK, S., MA *Leningrad*, PhD *Warsaw, Professor of Sociology*

CHONG HOK YUEN, C.K.S., BSc PhD *Lond.(U.K.), Assistant Professor of Computer Science*

CHORNEY, H., BA *Manit., Lecturer in Political Science*

CLAUS, A., BA *Heidel.*, MA *M.I.T.*, PhD *Tufts, Associate Professor of Quantitative Methods*

COHEN, G.E., BSc MSc PhD *McG., Associate Professor of Mathematics*

COHEN, M., BSc *McG.*, PhD *Calif., Associate Professor of Mathematics*

COHEN, P.S., BA *Sir G. Wms.*, Dip *Consrv. de Musique du Québ., Associate Professor of Fine Arts (Music)*

COLDEVIN, G.O., BA BEd *Sask.*, MEd PhD *Wash., Professor of Education*

COLEBROOK, L.D., BSc MSc PhD *Auck., Professor of Chemistry*

COLLINS, D., BArch *Virg. Polytech. Inst.*, MS *Ill., Associate Professor, Centre for Building Studies*

COMTOIS, U., *Associate Professor of Fine Arts (Sculpture and Crafts)*

CONHEADY, B., BComm *Univ. Coll., Dub.*, MBA *McG., Lecturer in Accountancy*

COOKE, E.F., BA *Tor.*, MFA *Iowa, Professor of Fine Arts (Art History)*

CORVIN, M., *Assistant Professor of Fine Arts (Theatre)*

COSTANZO, A., BA *Br. Col.*, MA *Wash., Associate Professor of Modern Languages (Italian)*

COYTE, R., BA MA *Oxf., Associate Professor of Political Science*

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de MORI, R., PhD *Polytec., Turin, Associate Professor of Computer Science*

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EGAN, E., BA *Manhattan,* MA PhD *Fordham, Associate Professor of Philosophy*
EHMER, I., BA *Sir G. Wms.*, MA *McG., Assistant Professor of Modern Languages (German)*
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LIU, Z., BA *Soochow Taipeh, Taiwan,* MA *Vanderbilt,* PhD *Colo. State, Associate Professor of Economics*
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LOMBOS, B.A., DipPhysChem *Szeged,* PhD *Montr., Professor of Electrical Engineering*
LOSIQUE, S., LèsL DES DU *Paris, Professor in Études Françaises*
LOWENFELD, G., BSc *Hebrew U.,* BSc *Sir G. Wms.,* MSc *McG.,* CA, *Assistant Professor of Accountancy*
LOWTHER, R.L., MSc *McG.,* PhD *Tor., Associate Professor of Biology*

MACALUSO, J.A., MA *N.Y., Associate Professor of Modern Languages (Spanish and Italian)*
MacDONALD, D., BComm *Sir G. Wms.,* CA, *Associate Professor of Accountancy*
MACINTOSH, B.R., BSc *Guelph,* PhD *Flor., Assistant Professor of Exercise Science*
MacKAY, B.E., BA *W. Ont., Assistant Professor of Fine Arts (Theatre)*
MacKAY, R., MA *Aberd., Associate Professor of Applied Linguistics*
MacKENZIE, C., BA *McM.,* MA MPhil *Tor., Assistant Professor of Fine Arts (Art History)*
MacKINNON, J.A., BSc *Qu.,* MSc PhD *McG., Associate Professor of Physics*
MacLEAN, L.E., BA *Tor.,* MA *Smith, Associate Professor of English*
MacLEOD, C.F., BSc *McG.,* MA *Br. Col.,* PhD *Minn., Associate Professor of Biology*
MAGEN, S., MBA *Cornell,* PhD *N.Y.U., Visiting Professor of Accountancy*
MAHEUX, V., BA *Montr.,* Lic Phil *Laval,* MA *C.U.A.,* PhD *McG., Associate Professor of Psychology*
MAHMOUD, E., BComm MBA *U. of Tech., Cairo,* MBA PhD *N.Y. State (Buffalo), Visiting Assistant Professor of Quantitative Methods*
MAJUMDAR, K., BSc MSc *Calc.,* PhD *Purdue, Associate Professor of Mathematics*
MALIK, M., BA *Boleslav Acad., Czech.,* DSc *Prague, Professor of Communication Studies*
MALIK, M.A., MSc *Alig.,* PhD *Montr., Associate Professor of Mathematics*
MALY, E., BS *Roch.,* PhD *Princ., Associate Professor of Biology*
MANGAT, B.S., BSc MSc PhD *Lond., Associate Professor of Biology*
MANN, H., BComm *Sir G. Wms.,* MBA *McG.,* PhD *N.Y.,* CA, *Professor of Accountancy*
MARKIEWICZ, D.M., BA MA PhD *Ohio State, Associate Professor of Psychology*
MARKLAND, E.B., BComm *Sir G. Wms.,* MBA *Mich. State,* CA, *Associate Professor of Accountancy*
MARSDEN, M., MA *Camb.,* MSc PhD *McG., Associate Professor of Geography*
MARSH, C., BA MA *Camb.,* Ing, *Professor of Engineering*
MARSHALL, J., BA *McG.,* MA *Tor., Sessional Lecturer in Geography*
MARTIN, G., BSc MSc *New Br.,* Ing, *Associate Professor of Computer Science*
MARTIN, R.K., BA *Wesleyan,* PhD *Brown, Associate Professor of English*
MASON, M., BA *Br. Col.,* PhD *Birm., Associate Professor of History*

FULL TIME 12.9

MAVADDAT, F., BEng *Tehran,* PhD *Lond., Associate Professor of Computer Science*

MAZURKEWICH, I., BA *Loy. (Montr.),* MA *McG.,* PhD *Montr., Assistant Professor of Teaching of English as a Second Language*

McCONKEY, K.M.C., BA PhD *Q'ld., Assistant Professor of Psychology*

McDONOUGH, S., MA PhD *McG., Professor of Religion*

McDOUGALL, D.J., BSc MSc PhD *McG., Professor of Geology*

McELCHERAN, D., BSc MSc *McM.,* PhD *Leeds, Associate Professor of Chemistry*

McEVENUE, S., BA LPh *Montr.,* MA *Halifax,* STL *Montr.,* SSL SSD *Rome, Associate Professor of Theological Studies*

McGOWN, K.L., BS MBA *Lamar U.,* PhD *N. Texas State, Associate Professor of Marketing*

McGRAW, J., BA *Notre Dame,* PhB PhL *Inst. of Phil., Chic.,* PhD *Angelicum, Rome, Associate Professor of Philosophy*

McKAY, J., BSc DipNumerAnal *Manc.,* PhD *Edin., Professor of Computer Science*

McKEOWN, R., BSc *Sir G. Wms.,* MBA *Qu., Sessional Lecturer in Marketing*

McLAUGHLIN, J.D., BA PhD *New Br., Associate Professor of Biology*

McNAMARA, V., BA *Tor.,* MA LPh DPhil *Laval, Associate Professor of Philosophy*

McQUEEN, H.J., BSc *Loy. (Montr.),* BEng *McG.,* MS PhD *Notre Dame,* Ing, *Professor of Mechanical Engineering*

McTAVISH, R., BSc *Lond.,* MA PhD *Strath., Visiting Professor of Marketing*

MELAMED, A., BA *Col.,* PhD *Paris, Associate Professor in Interdisciplinary Studies*

MENDELSOHN, L.R., BA *Brandeis,* MA *Harv.,* PhD *Wis., Associate Professor of English*

METALLINOS, N., BA MA *San Fran. State,* PhD *Utah, Associate Professor of Communication Studies*

MILLER, D.M., BA *Ill.,* BD PhD *Harv., Associate Professor of Religion*

MILLER, F.J., Nat'lDipDes *Ealing Coll. of Art,* ATD *Hornsey Coll. of Art, Lond., Associate Professor of Fine Arts (Painting and Drawing)*

MILLER, J., BA *Tor.,* MA PhD *McM., Sessional Lecturer in English*

MILLER, R., BA *Loy. (Montr.),* MA *Purdue,* MFA PhD *Southern Calif., Assistant Professor of Communication Studies*

MISRA, S.K., BSc *Agra,* MSc *Gorak.,* PhD *St. Louis, Professor of Physics*

MITCHELL, P.D., BSc MA *Dal.,* PhD *Case Western Res., Professor of Education*

MOLINARI, G., *Professor of Fine Arts (Painting and Drawing)*

MOLLIN, R.A., BA MA *W. Ont.,* PhD *Qu., Sessional Lecturer in Computer Science*

MONGENOT, G., Dip CREDIF *St. Cloud, Sessional Lecturer in Études Françaises*

MOORE, J.W., BA *Car.,* MA *Tor., Associate Professor of Political Science*

MORGERA, S.D., BSc MS PhD *Brown, Professor of Electrical Engineering*

MORLEY, P.A., BA *Tor.,* MA *Car.,* PhD *Ott., Professor of English and Canadian Studies*

MOROZIUK, R.P., BA MA *Ott.,* STD *Pontif. Inst. of Eastern Ecclesiastical Studies, Rome, Associate Professor of Theological Studies*

MORRIS, S.P., BSc PhD *McG., Associate Professor of Physics*

MORTON, M., BA *Wis.,* MS *Boston U. of Public Communications, Assistant Professor of Fine Arts (Cinema and Photography)*

MOULEDOUX, E., BA *Tulane,* BSLS MA *Louisiana State, Assistant Professor of Psychology*

MOULEDOUX, J.C., BA MA *Louisiana,* PhD *Kentucky, Associate Professor of Sociology*

MUKHERJI, K.K., BSc MSc *Calc.,* Dip Postgrad *Leeds,* PhD *W. Ont., Associate Professor of Geology*

MULLER, F., MA *F.U. Berlin,* PhD *Ruhr., Associate Professor of Economics*

MULLER, T., MBA *S. Fraser,* PhD *Br. Col., Assistant Professor of Marketing*

MULLETT, S., BA *McG.,* MA PhD *Purdue, Assistant Professor of Philosophy*

MULVEY, F.R., BSEd *Tufts,* DipArt *Mus. Sch. of F.A., Boston, Associate Professor of Fine Arts (Design)*

MURPHY, D., BA *Loy. (Montr.),* MA *San Fran. State Coll.,* PhD *U. of Calif. (Santa Barbara), Assistant Professor of Communication Studies*

NASSER, M.S., BSc *Cairo,* MASc PhD *Windsor, Associate Professor of Engineering*

NEAGU, P., *Visiting Associate Professor of Fine Arts (Sculpture and Crafts)*

NEEMEH, R.A., BEng *Alexandria,* MEng PhD *McG.,* Ing, *Associate Professor of Mechanical Engineering*

NEWELL, A., BA MA PhD *Pitt., Associate Professor of English*

NEWMAN, E.B., BSc *McG.,* MA PhD *Radcliffe, Professor of Biology*

NEWSHAM, G.S., BA BEd *Sask.,* MEd *Alta.,* PhD *Montr., Assistant Professor of Applied Linguistics*

NISH, C., BA *Sir G. Wms.,* MA *Montr.,* PhD *Laval, Professor of History*

NOGRADY, T., BSc MSc PhD *Bud., Professor of Chemistry*

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O'CONNOR, D., BA PhD *St. Louis, Associate Professor of Philosophy*

O'DAY, K., BS *Cornell,* MBA *Detroit, Associate Professor of Accountancy*

OMRAN, R.G., BSc *Cairo,* MSc *Alexandria,* PhD *Texas, A & M, Associate Professor of Biology*

OPALA, B., BA *Sir G. Wms.,* MA *McG.,* PhD *Montr., Associate Professor of English*

OPATRNY, J., MSc *Charles,* PhD *Wat., Assistant Professor of Computer Science*

OPPENHEIM, M.D., BA *S. Calif.,* MA PhD *Calif., Assistant Professor of Religion*

OPPENHEIMER, R., BSComm & EngSc MBA *Drexel,* PhD *Tor. Assistant Professor of Management*

ORNSTEIN, J., BA MA *Br. Col.,* PhD *Calif., Associate Professor of Philosophy*

OSMAN, M.O., BEng *Cairo,* DrScTech *Swiss Fed. Inst. Tech.,* Ing, *Professor of Mechanical Engineering*

OTCHERE, D., BSc *Lond. & Ghana,* MA *Br. Col.,* PhD *McG., Associate Professor of Economics*

PAIKOWSKY, S.R., BA *Sir G. Wms.,* MA Tor., Associate Professor of Fine Arts (Art History)

PALLEN, R.H., BSc *Sir G. Wms.*, MSc PhD *W. Ont., Associate Professor of Chemistry*
PALMER, J., BA *Indiana State*, MA PhD *Mich., Associate Professor of Applied Linguistics*
PANUSKA, V., MSc *Prague*, DPhil *Oxf., Associate Professor of Electrical Engineering*
PARC, P., LèsL DES *Paris, Associate Professor of Études Françaises*
PAREL, A., PhD *Harv., Visiting Scholar, Lonergan College*
PARISER, D., BA *Reed Coll.*, MSc *Southern Ill.*, MEd DEd EdD *Harv., Assistant Professor of Fine Arts (Art Education)*
PARK, D., BA *Coll. of William and Mary*, MA *McG.*, PhD *Indiana, Professor of Philosophy*
PARKER, R.J., BA *Loras Coll.*, MA PhD *Iowa, Associate Professor of Fine Arts (Art Education)*
PARKES, J.G., BSc MSc PhD *Tor., Assistant Professor of Biochemistry*
PASOLD, P.W., BComm *McG.*, MBA PhD *Penn., Associate Professor of Marketing*
PATEL, R.V., BEng *Liv.*, PhD *Camb., Associate Professor of Electrical Engineering*
PATTERSON, C.S., BA MA *Camb.*, MBA PhD *McG., Associate Professor of Finance*
PECHTER, E., BA *Cornell*, MA PhD *Calif., Associate Professor of English*
PEDERZOLI, G., MS *Stan.*, MA *Tor.*, Dottorato *Milan, Professor of Quantitative Methods*
PEKAU, O.A., BASc *Tor.*, DIC *Imperial*, MSc *Lond.*, PhD *Wat.*, PEng *Ont.*, Ing, *Associate Professor of Engineering*
PEPALL, L.M., BA *Trin. Coll. Tor., Lecturer in Economics*
PERRY, C.W., BA PhD *Syd., Professor of Psychology*
PETOLAS, J.P., BSc *Sir G. Wms., Associate Professor of Physics*
PETRIE, B.M., BPE MA *Alta.*, MA PhD *Mich. State, Associate Professor of Exercise Science and Sociology*
PETRIE, M., BA *McG.*, MA *Georgetown, Assistant Professor of Applied Linguistics*
PFLASTER, G., BA BS *Hunter Coll.*, MEd EdD *Col., Assistant Professor of Psychology*
PHILMUS, M., PhD *Ca'Foscari, Venice, Associate Professor of English*
PHILMUS, R.M., BA *Brown*, PhD *U. Calif. (San Diego), Professor of English*
PINSKY, A., Dip *Montr. Mus. Fine Arts, Professor of Fine Arts (Painting and Drawing)*
PITSILADIS, P.E., BComm *Sir G. Wms.*, MBA *W. Ont.*, PhD *U. of Wash., Associate Professor of Management*
PLOTEK, L., BFA *Sir G. Wms., Assistant Professor of Fine Arts (Painting and Drawing)*
POIRIER, M., BA *Loy.(Montr.)*, MA PhD *McG., Assistant Professor of Political Science*
POOROOSHASB, H.B., BS *Manc. U.K.*, PhD *Camb., Professor of Civil Engineering*
POPP, Z.G., BComm *Ott.*, MBA *Chic., Associate Professor of Quantitative Methods*
POTEET, L.J., AB *Bethany Nazarene*, MA *Okla.*, PhD *Minn., Associate Professor of English*
POTTER, C.C., BScComm *Sir G. Wms.*, MComm PhD *McG., Professor of Finance*
PRESTON, E., BA *Manc.*, MA *McG., Associate Professor of Classics*
PRICE, E., BA *Sir G. Wms.*, Cert d'EtSup DES d'Etat *Grenoble, Associate Professor of Political Science*
PRILLO, A., BSc *Montr.*, MA *Tor., Associate Professor of Mathematics*
PRINCE, B., BS *Utah*, MA *Brigham Young U., Assistant Professor of Management*
PROBST, D., DSc *Bruxelles, Assistant Professor of Computer Science*
PROPPE, H.W., BSc MSc PhD *McG., Associate Professor of Mathematics*

RADAKRISHNAN, T., BE *Madr.*, MTech PhD *I.I.T. Kanpur, Associate Professor of Computer Science*
RAJAMANNAR, G., BSc *Madr.*, MSc *Annam.*, PhD *I.I.T. Madras, Assistant Professor of Quantitative Methods*
RAJAN, G.S., BA MA *Annam.*, MS PhD *Wis., Associate Professor of Management*
RAMACHANDRAN, V., BSc DIISc(ECE) DIISc (Electronics) PhD *I.I.Sc., Professor of Electrical Engineering*
RAMAMURTHY, A.S., BSc *St. Philomena's Mys.*, BEng *Nat. Inst. of Eng., Mys.*, MSc *I.I.S.C.*, PhD *Purdue, Professor of Engineering*
RAPHAEL, R., BSc MA *Wat.*, PhD *McG., Professor of Mathematics*
RASHID, M.H., BSc *B'desh. Engin.*, MSc PhD *Birm., Associate Professor of Electrical Engineering*
RAUDSEPP, E., BA *McG.*, MS *Col.*, PhD *McG., Assistant Professor of Journalism*
REDDY, H.C., BE *S. Venkatt*, ME MS *Bda.*, PhD *Osm., Associate Professor of Electrical Engineering*
REGENER, E., BA *N.Y.U.*, MFA PhD *Princ., Assistant Professor of Computer Science*
REIDY, M., BA *Boston Coll.*, MA PhD *Tor., Associate Professor of Philosophy*
REIMER, W.C., BA MA PhD *Br. Col., Associate Professor of Sociology*
REINBLATT, N., BSc *York*, CA, *Sessional Lecturer in Accountancy*
REZNICEK, W.A., BA *Allegheny Coll.*, MA *Cornell, Associate Professor of Fine Arts (Theatre)*
RICE, G., BSc *Brad., Visiting Assistant Professor of Marketing*
RIENER, K., BS *Idaho*, MSIA PhD *Purdue, Associate Professor of Finance*
RIGAULT, O., BA *Rennes*, MA *McG., Associate Professor of Études Françaises*
RIPSTEIN, H.B., MBA *Qu.*, CA, *Associate Professor of Accountancy*
ROBERTON, L., BA *Qu.*, MBA *W. Ont.*, CA, *Sessional Lecturer in Accountancy*
ROBINSON, I., BA *Johns H.*, MA *Col.*, PhD *Harv., Assistant Professor of Religion*
ROLLAND-BARKER, M., BA MA *Montr., Lecturer in Education*
RONQUIST, E.C., BA *St. John's Maryland*, MA PhD *Chic., Associate Professor of English*
ROSENBLATT, J., BA *McG.*, MBA *C'dia., Sessional Lecturer in Marketing*
ROSINE, G., BFA *Utah*, MFA *Col.*, PhD *Penn. State U., Associate Professor of Fine Arts (Art Education)*
ROSS, A.L., BA *Winn.*, MSc *Lond. Sch. of Econ.*, PhD *Tor., Assistant Professor of Political Science*
ROSS, C.A., BSc *W.I.*, MBA PhD *W.Ont., Assistant Professor of Marketing*
ROSSNER, J.L., BA *Trinity, Hartford*, MA *Brown*, BD Thl *Nashotah*, STM *McG., Associate Professor of Religion*
ROTHKRUG, L.N., AB MA PhD *Calif., Professor of History*

FULL TIME 12.9

ROWAN, M., BA *New Mexico*, MA PhD *Harv.*, *Visiting Scholar, Liberal Arts College*
ROY, R.M., BSc MA PhD *Tor.*, *Associate Professor of Biology*
RUBY, S.M., BSc *Nfld.*, MSc PhD *W. Ont.*, *Associate Professor of Biology*
RUDIN, R.E., BA *Pitt.*, MA PhD *York (Can.)*, *Associate Professor of History*
RUSSELL, S., BA MA *Car.*, PhD *Tor.*, *Assistant Professor of Sociology*
RYAN, J.J., BA *St. Mary of the Lake Seminary*, MA PhD *Chic.*, *Associate Professor of Theological Studies*
RYE, R.T.B., BA MSc *Br. Col.*, PhD *Lond.*, *Associate Professor of Chemistry*

SABER, A.J., BASc *Tor.*, MA PhD *Princ.*, Ing, *Assistant Professor of Mechanical Engineering*
SACCA, E.J., BS MEd PhD *Penn.*, *Associate Professor of Fine Arts (Art Education)*
SAHNI, B.S., MA *Delhi*, MBA *N.Y.*, PhD *New Sch. Soc. Res.*, *Associate Professor of Economics*
SANDBLOM, C.L., FilKand FilMagLund PhD *Birm.*, *Professor of Quantitative Methods*
SANDERS, L., BA MA *Lond.*, PhD *McM.*, *Associate Professor of Classics*
SANDERSON, W., BA MA *Boston*, PhD *N.Y.*, *Professor of Fine Arts (Art History)*
SANKAR, S., BEng *Madr.*, MEng DEng *Sir G. Wms.*, *Associate Professor of Mechanical Engineering*
SANKAR, T.S., BEng *Madr.*, ME *I.I.Sc.*, PhD *Wat.*, *Professor of Mechanical Engineering*
SASSANO, G.P., DSc PhD *Milan*, PhD *Alta.*, *Associate Professor of Geology*
SBROCCHI, F.L., MBA *W. Ont.*, CIA RIA, *Assistant Professor of Accountancy*
SCHEER, H., BA MA *Alta.*, PhD *McG.*, *Associate Professor of Modern Languages (German and Linguistics)*
SCHEFFMAN, D., BA *Minn.*, PhD *M.I.T.*, *Professor of Economics*
SCHEINBERG, S.J., BSc *Chic.*, MSc PhD *Wis.*, *Associate Professor of History*
SCHMID, R., BA *St. Johns*, MA PhD *Ariz.*, *Associate Professor of Education*
SCHNEIDER, J.D., BA *Sir G. Wms.*, MA PhD *McG.*, *Associate Professor of Études Françaises*
SCHWARTZMAN, A., PhD *McG.*, *Professor of Psychology*
SCHWELB, O., DipEng *Bud.*, PhD *McG.*, *Associate Professor of Electrical Engineering*
SEENS, R., BA *S. Fraser*, MA PhD *Vic. B.C.*, *Associate Professor of Psychology*
SEGALOWITZ, N., BSc *McG.*, PhD *Oxf.*, *Associate Professor of Psychology*
SELLERS, W., BS *Rhode Island*, MEd *Pitt.*, EdD *Boston*, *Associate Professor of Exercise Science*
SENEZ, J., BSc *Manit.*, MSc *McG.*, *Associate Professor of Mathematics*
SERAGANIAN, P., BA *McM.*, MA PhD *Dal.*, *Associate Professor of Psychology*
SERBIN, L.A., BA *Reed Coll.*, PhD *S.U.N.Y. (Stonybrook)*, *Associate Professor of Psychology*
SERPONE, N., BSc *Sir G. Wms.*, PhD *Cornell*, *Professor of Chemistry*
SEVERIENS, J., BA *Harv.*, MBA *Penn.*, PhD *Iowa*, *Visiting Professor of Finance*
SEVIGNY, P., BA BComm *Laval*, *Executive-in-Residence*
SHAFFER, H., BComm *McG.*, *Assistant Professor of Marketing*
SHAMES, M., BA MA PhD *Manit.*, *Associate Professor of Psychology*
SHAPIRO, D., BA *Calg.*, MA PhD *Cornell*, *Associate Professor of Economics*
SHAPIRO, M., BA MA PhD *Tor.*, *Assistant Professor, Centre for Building Studies*
SHARMA, R.C., MA MSc *Delhi*, PhD *Tor.*, *Associate Professor of Physics*
SHARMA, V.A., BA *Manc. Coll.*, MA MS PhD *Indiana*, *Assistant Professor of Applied Linguistics*
SHAW, C.M., BA MA *Br. Col.*, PhD *Texas*, *Sessional Lecturer in English*
SHEETS-PYENSON, S., BA *Mich.*, PhD *Penn.*, *Sessional Lecturer in Science and Human Affairs Programme*
SHEPPARD, D., BA *McG.*, BA *Car.*, MA PhD *York*, *Assistant Professor of Sociology and Anthropology*
SHEPS, G.D., BA *Manit.*, MA *Cornell*, *Associate Professor of English*
SHERMAN, L., BA *Sir G. Wms.*, MA *N.Y.*, *Professor of Fine Arts (Art Education)*
SHIN, J., BSc *Swarthmore Coll.*, MSc *Cornell*, *Associate Professor of Physics*
SHINGAL, R., BE *Burd.*, MTech *Kan.*, MMath *Wat.*, PhD *McG.*, *Associate Professor of Computer Science*
SHIZGAL, P., BA *McG.*, MA PhD *Penn.*, *Associate Professor of Psychology*
SHLOSSER, F.E., BA *Sir G. Wms.*, MA PhD *McG.*, *Assistant Professor of History*
SHULMAN, H., BA *Sir G. Wms.*, MA *Car.*, *Assistant Professor of Political Science*
SIDOROW, A.T., MA PhD *Montr.*, *Associate Professor of Modern Languages (Russian)*
SIGGEL, E., DipIng *Berl.*, MA *Montr.*, PhD *Tor.*, *Assistant Professor of Economics*
SIMON, P., Ing Textile *Stras.*, MA PhD *Montr.*, *Professor of Management*
SIMON-MACDONALD, K., BComm MBA *C'dia.*, *Sessional Lecturer in Marketing*
SIMS, W.A., BA MA PhD *Tor.*, *Associate Professor of Economics*
SINGER, M., BA *Hunter*, MA PhD *Mich.*, *Associate Professor of History*
SINGH, A.V., BScEng *Ranchi*, MASc PhD *Ott.*, *Visiting Assistant Professor of Mechanical Engineering*
SINGH, B., BA *Alld.*, MA *L'now.*, PhD *Delhi*, *Visiting Associate Professor of Economics*
SINGH, L.P., BA MA *Alld.*, PhD *Delhi and A.N.U.*, *Professor of Political Science*
SLACK, B., BA *Lond.*, MA PhD *McG.*, *Associate Professor of Geography*
SLOAN, W.K., AOCA *Ont. Coll. of Arts*, *Associate Professor of Fine Arts (Theatre)*
SMITH, A.E., BS *N.Y.*, MSc *Ill.*, PhD *Mich. State*, *Associate Professor of Physics*
SMITH, B., BA *Dub.*, MSc *Alta.*, PhD *Qu.*, *Assistant Professor of Quantitative Methods*
SMITH, B.M., BA *Queen Mary*, MA *Laval*, MA *C'dia.*, *Assistant Professor of Applied Linguistics*
SMITH, I.H., BA *Sir G. Wms.*, MA PhD *McG.*, *Associate Professor of History & Russian Studies*
SMITH, J.B., BA *York (Can.)*, MA PhD *W. Ont.*, *Assistant Professor of Economics*
SMITH, J.I., BSc *McG.*, *Associate Professor of Fine Arts (Sculpture and Crafts)*
SMITH, N.E., BA *New Br.*, MA PhD *McG.*, *Professor of Mathematics*
SMITH, R., BA *Montr.*, MSc *Tor.*, *Assistant Professor of Mathematics*
SMOLA, J., BComm BA *Sir G. Wms.*, MA PhD *Montr.*, *Professor of Management*
SMUCKER, J., BA *Bluffton*, MA PhD *Mich. State*, *Associate Professor of Sociology*

SOCKNAT, T.P., BA *Nebraska State Coll.*, MA *Univ. of Nebraska*, PhD *McM.*, *Visiting Assistant Professor of History*

SOMMER, R.J., BA *Minn.*, MA PhD *Harv.*, *Associate Professor of English*

SONN, J., BSc *Queens Coll. (N.Y.)*, MSc PhD *Ohio State U.*, *Visiting Associate Professor of Mathematics*

SOOD, B.K., BSc MSc PhD *Delhi*, *Assistant Professor of Physics*

SORFLEET, J.R., BA MA *Manit.*, PhD *New Br.*, *Associate Professor of English*

SORIC, J., BSc MSc *McM.*, *Associate Professor of Mathematics*

SPENSLEY, P., BA *Wis.*, MA PhD *Wayne State*, *Associate Professor of Fine Arts (Theatre)*

SPICER, M., BA *Montr.*, MA *Inst. d'Et. Médievales, Montr.*, MA *McG.*, PhD *Ott.* PhD(Th) *Coll. Dom.*, *Associate Professor of Theological Studies*

SPROULE, J.A., BA *Sir G. Wms.*, MpsSc *McG.*, *Assistant Professor of Applied Social Science*

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SRIVASTAVA, T., BSc MSc *Luck.*, PhD *Gorak.*, *Associate Professor of Mathematics*

STANO, M., BComm *McG.*, MA PhD *Cornell*, *Visiting Assistant Professor of Economics*

STATHOPOULOS, T., DipEng *Athens*, MESc PhD *W. Ont.*, PEng *Ont.*, *Associate Professor, Centre for Building Studies*

STELCNER, M., BComm *McG.*, MA PhD *Syr.*, *Associate Professor of Economics*

STERN, R.J., BSc *Cooper Union*, MSc PhD *Northwestern*, *Associate Professor of Mathematics*

STEVENS, F., BA *Sir G. Wms.*, MA *C'dia.*, PhD *Univ. de Genève*, *Assistant Professor of Education*

STEWART, J., BA *Qu.*, PhD *Lond.*, *Professor of Psychology*

STONYER, A., BA *Lough. Coll. of Art and Des.*, BA *Falmouth Sch. of Art*, MA *Reading Univ.*, *Assistant Professor of Fine Arts (Design)*

STORMS, R.K., BSc PhD *Alta.*, *Assistant Professor of Biology*

SUEN, C.Y., BScEng MScEng *H.K.*, MASc PhD *Br. Col.*, *Professor of Computer Science*

SUGDEN, L., BA BEd MA *Manit.*, Dd'U *Nice*, *Associate Professor of Etudes Françaises*

SULLIVAN, S.J., DipPhysEd *Otago*, MSc PhD *Wat.*, *Assistant Professor of Exercise Science*

SVOBODA, J.V., DipIng *Prague*, DEng *C'dia.*, *Associate Professor of Mechanical Engineering*

SWAMY, M.N.S., BSc *Mys.*, DIISc *I.I.Sc.*, MSc PhD *Sask.*, Ing, *Professor of Electrical Engineering*

SWEDBURG, R.B., BS *Bemidji*, MEd EdD *Idaho*, *Associate Professor of Exercise Science*

SYNNOTT, A.J., BSc PhD *Lond.*, MA *W. Ont.*, *Associate Professor of Sociology*

SZABO, M.E., MA *Oxf.*, MSc PhD *McG.*, *Professor of Mathematics*

SZILASI, G., *Assistant Professor of Fine Arts (Cinema and Photography)*

TAGGART, G.C., MA *Colo.*, PhD *Montr.*, *Professor of Études Françaises*

TAKAHASHI, A., BA *Meiji, Tokyo*, MA *Hawaii*, PhD *Pitt.*, *Associate Professor of Economics*

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TAYLOR, D., BA MA PhD *Tor.*, *Assistant Professor of English*

TAYLOR, M., BA *Sask.*, MA *Wis.*, PhD *Tor.*, *Assistant Professor of Applied Social Science*

TAYLOR, N.D., BA *McM.*, MA PhD *McG.*, *Associate Professor of Psychology*

TEE, O.S., BSc *Leic.*, MSc *McM.*, PhD *E. Anglia*, *Associate Professor of Chemistry*

THORNTON, P., MA PhD *Aberd.*, *Assistant Professor of Geography*

THULASIRAMAN, K., BE MSc *Madr.*, PhD *I.I.T. Madras*, *Professor of Mechanical Engineering*

TIFFOU, M., BA *Toulouse*, DES *Montr.*, *Associate Professor of Études Françaises*

TITTLER, R., BA *Oberlin Coll.*, MA PhD *N.Y.*, *Professor of History*

TOBIAS, R.H., BA *Sir G. Wms.*, *Professor of English*

TODOROVIC, U., BComm MBA *Sir G. Wms.*, *Assistant Professor of Marketing*

TOVAR, M., MS PhD *Indiana Univ.*, *Lecturer in Education*

TOWNSHEND, R.E., MSc *W. Ont.*, PhD *Ott.*, *Associate Professor of Chemistry*

TREACY, S., BSc BE *N.U.I.*, MBA *W. Ont.*, *Sessional Lecturer in Marketing*

TRESIERRA, J., BA *Catholic U., Lima, Peru*, MA PhD *Notre Dame*, *Associate Professor of Sociology*

TROITSKY, M.S., DipCE DTechSc *Belgrade*, Ing, *Professor of Engineering*

TRUCHON, P.N., BA *Laval*, MA *McG.*, *Associate Professor of Études Françaises*

TRUDEL, G., BSc *McG.*, PhD *Leeds*, *Associate Professor of Chemistry*

TRUEMAN, C., BEng MEng PhD *McG.*, *Assistant Professor of Electrical Engineering*

TURAGA, M., BE *Osm.*, MS *Roch. Inst. Tech.*, *Lecturer in Engineering*

TURGEON, J.C., MS PhD *Col.*, *Associate Professor of Mathematics*

TWEEDIE, K., BA *McG.*, *Assistant Professor in Fine Arts (Cinema and Photography)*

UFFORD, J.R., BEng *McG.*, MASc *Tor.*, PhD *McG.*, *Professor of Chemistry*

UPSHUR, J.A., BA *Yale*, MA PhD *Mich.*, *Associate Professor of Applied Linguistics*

VAISHNAVI, V., BE *J. & K.*, MTech PhD *I.I.T. Kanpur*, *Visiting Assistant Professor of Computer Science*

VALASKAKIS, G., BSc *Wis.*, MA *Cornell*, PhD *McG.*, *Associate Professor of Communication Studies*

VAN NUS, W., BA MA PhD *Tor.*, *Associate Professor of History*

VAN TOCH, L., BA *Durh.*, LèsL *Lille*, MA *Durh.*, *Associate Professor of Études Françaises*

VAN WEST, P., BS MS EdD *Ill. State U.*, *Lecturer in Education*

VASIL, A., BComm LIA *McG.*, *Sessional Lecturer in Accountancy*

VASQUEZ, J., BSc *UNAM*, MA *C'dia.*, *Lecturer in Education*

VELLACOTT, J., BA MA *Oxf.*, MA *Tor.*, PhD *McM.*, *Visiting Assistant Professor, Simone de Beauvoir Institute*

VERSCHINGEL, R.H.C., BSc *Sir G. Wms.*, PhD *McG., Professor of Chemistry*
VERTHUY, M.E., BA *Lond.*, MA *Tor., Associate Professor of Etudes Françaises*
VILLATA, B., BA *C'dia.*, Dottore *Univ. Torino, Sessional Lecturer in Modern Languages and Linguistics*
VIPOND, M., BA *Qu.*, MA PhD *Tor., Associate Professor of History*

WADE, P., BA *Tor.*, MSc *Montr.*, PhD *McG., Associate Professor of Accountancy*
WAGNER, N., BFA *Mt. All.*, MA *C'dia., Associate Professor of Fine Arts (Art Education)*
WAINWRIGHT, R.B., RCA, DipFA *Van. Sch. of Art, Associate Professor of Fine Arts (Sculpture and Crafts)*
WANG, J.C., BSME *Nat'l. Taiwan U.*, MEng PhD *W.Ont., Associate Professor, Centre for Building Studies*
WANG, Y.H., BS *National Taiwan*, MBA *N.Y.*, MS *Stan.*, PhD *Ohio State, Associate Professor of Mathematics*
WARDY, B., BEd *Israel*, BA MA PhD *McG., Associate Professor of Classics*
WAREHAM, R.S., BA *R.M.C.*, MA *Mich., Associate Professor of English*
WATERS, K., BA *McG.*, MA *Oxf., Associate Professor of English*
WAUGH, T., BA *W. Ont.*, MFA MPhil PhD *Col., Associate Professor of Fine Arts (Cinema and Photography)*
WEST, D., BSc BA *Acad.*, MA PhD *Tor., Associate Professor of Quantitative Methods*
WESTBURY, R.A., BSc PhD *McG., Associate Professor of Chemistry*
WHEELER, D., BSc *Lond., Professor of Mathematics*
WHITE, C., BA *Rice*, PhD *Stan., Associate Professor of Psychology*
WHITE, D., BS *Ohio*, MS PhD *Pitt., Associate Professor of Psychology and Education*
WHITE, R., BAgE *Cornell*, MArch *Yale, Assistant Professor, Centre for Building Studies*
WHITELAW, J.H., MA *Oxf.*, MA *Montr., Professor of Modern Languages*
WHITTOME, I., RCA Dip *Van. Sch. of Art, Associate Professor of Fine Arts (Painting and Drawing)*
WIDDEN, P., BSc *Liv.*, PhD *Calg., Associate Professor of Biology*
WILLIAMS, B., BA *Tor*, MA *Alta.*, PhD *Car., Associate Professor of Political Science*
WILLS, R.O., BSc *Dal.*, MBA *Windsor, Associate Professor of Quantitative Methods*
WISE, R.A., BA MA *Calif. State*, PhD *McG., Professor of Psychology*
WOODSIDE, B., BSc *University Coll.*, PhD *McM., Assistant Professor of Psychology*
WOODSWORTH, J., BA *McG.*, LèsL *Stras.*, PhD *McG., Assistant Professor of Études Françaises*
WRAGE, P., BA *W. Ont.*, MBA *Tor.*, PhD *Indiana, Associate Professor of Quantitative Methods*
WRIGHT, B., BA MA *S.A., Assistant Professor of Economics*

XISTRIS, G.D., BEng MEng *McG.*, DScA *Montr.*, Ing, *Associate Professor of Mechanical Engineering*

YOUNG, J.W., BSc *Lond.*, MA *Br. Col.*, PhD *McG., Associate Professor of Geography*

ZAKI, M., BSc *Luck.*, MSc *Alig.*, PhD *Montr., Associate Professor of Mathematics*
ZEMAN, V., PhD *Charles U., Associate Professor of Philosophy*
ZIELINSKI, Z.A., Inz MTechSc DTechSc *Politechnika Warszawska*, Ing, *Professor of Engineering*
ZIENIUS, R.H., BSc PhD *McG., Associate Professor of Chemistry*
ZIOGAS, P.D., BASc MASc PhD *Tor., Associate Professor of Electrical Engineering*

12.10 FACULTY POST-RETIREMENT

diMICHELE, D., PhD *Rome, Associate Professor of Modern Languages (Italian)*
FRIEDMAN, F.P., BA *McG.*, MA *Col., Associate Professor of Education*
McDONALD, R.D., BA MSW *Tor., Professor of Applied Social Science*
OH, K., BA *Chou Coll., Tokyo*, LLB *Tokyo*, MA PhD *Penn., Associate Professor of Political Science*
RUDE, G., BA MA *Camb.*, PhD *Lond.*, DLitt *Adel., Professor of History*
SPRINGFORD, N., BA *New Br., Professor of Fine Arts (Theatre)*

12.11 RESEARCH PROFESSORS

Full-time

COOLIDGE, R., BA *Harv.*, MA *Calif.*, BLitt *Oxf., Research Associate Professor of History*
FABRIKANT, V., BTech MSc *Ivanovo (USSR)*, PhD *Moscow, Research Assistant Professor of Mechanical Engineering*

12.12 LIBRARIANS

APPLEBY, J., BA *Sir G. Wms.*, MLS *McG., Assistant Librarian (Vanier)*
BENNETT, J., BA MA *Sir G. Wms.*, MLS *McG., Interlibrary Loans Librarian (Norris)*
BOUCHER, L., BA *Sir G. Wms.*, BLS *McG., Reference Librarian (Vanier)*
BRUCE, E., BA *Windsor*, BLS *Tor., Reference Librarian*
CAMERON, D., BA BLS *McG., Reference Librarian (Norris)*
CARPENTIER, L., BA *Laval*, BLS *Tor.*, MBibl *Montr., Government Publications and Microforms Librarian*
COHEN, M., BA MLS *McG.*, PhD *Exe., Collection Coordinator*
FILION, P.E., BA *Montr.*, LPh LTh *Imm. Conception*, MSLS *Col.*, DUL *Laval, LLD W. Ont., Assistant Vice-Rector and Director of Libraries*

GAMEIRO, M.H., BA MLS *McG., Reference Librarian (Vanier)*
GOLUBOWSKI, A., BA *McG.*, MPs *Montr.*, MLS *McG., General Librarian — Reference and Government Publications (Norris)*
HARRIS, L., BSc MLS *McG., Reference Librarian (SEL)*
HEMMINGS, M., BA *C'dia.*, MLS *McG., Cataloguing Librarian*
HOBBS, K., BSc MLS *McG., Reference Librarian (SEL)*
HOCHMANN, G., BA *Sir G. Wms.*, MLS *McG., Reference Librarian*
JIRKOVSKY, Z., Dip Ing Tech U. *Prague*, MLS *McG., Head, Science and Engineering Library*
KALB, S., BA *Sir G. Wms.*, MLS *McG., Derived Cataloguing and Additions Librarian*
KATZ, S.B., BA *McM.*, BLS *Tor.*, MLS *McG., Cataloguing Librarian*
MacLAURIN, C., BA MLS *McG., Reference Librarian (Norris)*
MAHARAJ, D., BA MLS *McG., Reference Librarian (Norris)*
MASSICOTTE, M., BA *N.Y. State (Platts.)*, MLS *McG., Bibliographic Maintenance and Authority Librarian*
OLYNYK, E., BA *Sir G. Wms.*, MLS *McG., Cataloguing Librarian*
ORBACH, M., BA BLS MLS *McG., Reference Librarian (Vanier)*
OTCHERE, F., BA *Br. Col.*, MLS *McG., Non-Print/Microforms Cataloguing Librarian*
PERRON, H., BA BPh BLS *Ott.*, MLS *McG., Reference Librarian (Vanier)*
PRINCZ, J., BA *Sir G. Wms.*, BLS *McG.*, MA *Montr., Associate Director of Libraries and Head, Reader Services*
ROHRLICK, R., BSc MLS *McG., Head, Norris Library*
RUBINLICHT, L., BA *Sir G. Wms.*, MLS *McG., Head, Cataloguing Department*
SENDEK, I., BA *Marianopolis*, BLS MLS *McG., Head, Loyola Campus Libraries*
SHANFIELD, J., BA MLS *McG., Reference Librarian (Norris)*
SINGER, L., BA MLS *McG.*, MA *Mich., Non-Print Librarian (Norris)*
SNOWBALL, G.J., BSc *Lond.*, MLS *McG., Head, Budget, Planning and Administration*
TABAH, A., BSc MLS *McG., Reference Librarian (SEL)*
TALLON, J., BA *Manit.*, MA MLS *W. Ont., Computer Assisted Reader Services Coordinator*
WINIARZ, E., BSc MLS *McG., Reference Librarian (SEL)*
WRIGHTSON, R., BA *Qu.*, MLS *W. Ont., Head, Acquisitions Department*
ZEMAN, E., BA *Prague*, MLS *W. Ont., Cataloguing Librarian*

NOTE: The following is a list of part-time Faculty which was in effect for the 1982-83 Fall, Winter and Summer Sessions.

12.13 FACULTY PART-TIME

AGRAWAL, R., *Mechanical Engineering*
AHMAD, M., *Mathematics*
AHMAD, N., *Economicc*
AHMAD, P., *Computer Science*
AHMED, S.W., *Quantitative Methods*
AHMEDALI, S.T., *Geology*
AITKEN, W., *Cinema and Photography*
AJZENKOPF, L., *Marketing*
ALLEGRUCCI, A.-M., *Etudes Françaises*
ALLEN, J.C., *Marketing*
ALLNUTT, D., *Political Science*
ALLY, M., *Education*
ALTSCHUL, S., *Political Science*
ANTONI, P.D., *Mathematics*
ARCHER, G., *Economics*
ARTZY, D., *Sociology and Anthropology*
ASKEROW, M., *Etudes Françaises*
ASKEW, P., *English*
ATTIA, M., *Mechanical Engineering*
AUCLAIR, M., *Modern Languages (Spanish)*
AUST, A.E., *Management*
AUSTIN, B., *Management*

BABINSKI, M.C., *Modern Languages (Spanish)*
BAKER, P., *Psychology*
BALAWYDER, C., *Teaching of English as a Second Language*
BALDWIN, J.W., *Communication Studies*
BANKO, R., *Teaching of English as a Second Language*
BARBONE, M., *Engineering*
BARCLAY, B., *Teaching of English as a Second Language*
BARKER, J.M., *Education*
BARNES, B., *Education*
BARRETT, E., *English*
BARTH, L., *Quality Control*
BARTLETT, B., *English*
BAYLIN, R., *English*
BEAUDRY, G., *Etudes Françaises*
BECK, E., *Applied Social Science*
BEDFORD, J., *Mathematics*
BEER, S., *Education*
BELANGER, H., *Accountancy*
BELOFF, R.D., *English*
BENDER, E., *Library Studies*
BENISON, P., *Cinema and Photography*
BENNETT, R., *Economics*
BENOIT, M., *English*
BERGER, C., *Psychology*
BERRINGER, D., *Music*
BERTRAND, L., *Theatre*
BHASKARAN, P., *Civil Engineering*
BHAT, V.M., *Computer Science*
BIER, C., *Health Education*
BINDA, M., *Etudes Françaises*
BISHAY, Y.M., *Geology*
BLAIR, R., *Psychology*
BLICKER, S., *English*
BLOOMSTONE, B., Rabbi, *Theological Studies*
BLYDT-HANSEN, R., *Marketing*
BOIRE, R., *Quantitative Methods*
BOIVIN, J.-R., *Etudes Françaises*
BOLOURCHI, S., *Biology*
BOUCHARD, M., *Etudes Françaises*
BOUCHARD-HATCH, M., *Marketing*
BOURQUE, A., *Etudes Françaises*
BOZARTH, M., *Psychology*
BOZEL, F., *Mathematics*
BRAVERMAN, J., *Religion*
BRECKENRIDGE, J., *Accountancy*
BRITT, M., *Psychology*
BROCK, I.S., *Marketing*
BROSSEAU, T.A., *Education*
BROWN, D., *Administration*
BROWN, G., *Mathematics*
BROWN, J., *English*
BROWN, R., *English*
BROWN, Z., *Psychology*

BROWNE, M., *English*
BRUCK, M., *Psychology*
BRYANT, R.W.G., *Geography*
BUI, H.T., *Computer Science*
BULGUTCH, M., *Journalism*
BURSTEIN, S., *Psychology*
BUTLER, G., *Computer Science*
BYERS, V., *Mathematics*

CABRAL, J., *Accountancy*
CALLAN, M., *Applied Social Science*
CAMPBELL, c., *Library Studies*
CANTIN, R., *Cinema and Photography*
CARBALLADA L., *Civil Engineering*
CARCANAGUES, B., *Etudes Françaises*
CARDINAL, C., *Health Education*
CARDUCCI-SIDORENKO, E., *Modern Languages (Italian)*
CARRELL, N., *Marketing*
CARTERON, C., *Etudes Françaises*
CARTIER, N., *Etudes Françaises*
CASSIDY, M., *Mathematics*
CERNY, E., *Electrical Engineering*
CHAKI, G., *English*
CHALK, K., *Science and Human Affairs*
CHALMERS, J., *Cinema and Photography*
CHAMANADJIAN, L., *Modern Languages (Spanish)*
CHAN, T.-N.R., *Computer Science*
CHARBONNEAU, R.G., *History*
CHARLEBOIS, J., *Library Studies*
CHARLTON, P., *Accountancy*
CHARNEY, M.M., *English*
CHEUNG, E.Y.K., *Computer Science*
CHOMSKI, C.D., *Mechanical Engineering*
CHOQUETTE, L., *Mathematics*
CLARK, T.B., *Education*
CLARKE, G., *Education*
CLARKE, R., *Mathematics*
CLEMENT, S., *Sociology; Management*
CLIFT, R., *Liberal Arts College*
COCHRANE, G.E., *English*
COHEN, C., *Accountancy*
COHEN, M.S., *Etudes Françaises*
COLLE, J.M., *English*
CONDOMAROS, S., *Quantitative Methods*
CONNELLY, J., *Teaching of English as a Second Language*
CONSTANTIN, B., *Biology; Health Education*
COPLIN, H., *Applied Social Science*
CORRIGAN, W., *Mathematics*
COUGHLIN, L.P., *Exercise Science*
COULOMBE, R., *Graphic Design*
COULTER, J., *Library Studies*
COUPLAND, S., *Psychology*
CRAIGHEAD, A.B., *Economics*
CRESPIN, F., *Etudes Françaises*
CRICHTON, R., *Accountancy*
CROMBIE, G., *Psychology*
CROOKS, M.C.H., *English*
CUMMING, A., *Teaching of English as a Second Language*
CURRAN, P.K., *Marketing*
CZERSKI, P., *Cinema and Photography*

DALE, G., *Classics*
D'ALESSIO, M., *Modern Languages (Italian)*
DANIS, J.-C., *Political Science*
DANN, N., *Communication Studies*
DANSON, L., *Applied Social Science*
D'APOLLONIA S., *Biology*
DARCUS, R., Rev., *Theological Studies*
DARMON, N., *Etudes Françaises*
DAS, S.K., *Engineering*
DEBELLEFEUILLE, B., *Exercise Science*
DEBLOIS, A., *Sociology and Anthropology*
DE BOUARD, B., *Etudes Françaises*
DECHENE, M., *English*
DECKER, K.R., *English*
DE GASPE BONAR, J., *Etudes Françaises*
DE GROOT, O., *Teaching of English as a Second Language*
DELANEY, P., *Theatre*
DEMERS, M., *Etudes Françaises*
DESCHAINTRES, M., *Education*
DESLAURIERS, R., *Etudes Françaises,*
DES ROSIERS DELANAUZE, R., *Management*
DICK, J.G., *Chemistry*
DI DOMENICO, J., *Mathematics*
DIEGUEZ, I., *Modern Languages (Spanish)*
DI LULLO, G., *Modern Languages (Italian)*
DIONNE, D., *Women's Studies*
DIONNE, M., *Etudes Françaises*
DI TOMASO, F., *Accountancy*
DO, Q.-T., *Finance*
DOBSON, N., *Mathematics*
DOERR, K., *Modern Languages (German)*
DOUCET, R., *Management*
DOUEK, M., *Applied Social Science*
DOUGHERTY, D., *Finance*
DRANOV, M., *Accountancy*
DRUMMOND, S., Rev., *Biology*
DRYE, E., *Etudes Françaises*
DUBE, L.S., *Engineering*
DUBOIS, S., *Biology*
DUCK, F.W., *Finance*
DUFRESNE, B., *Journalism*
DUGUAY, B., *Marketing*
DUKKIPATI, R., *Mechanical Engineering*
DUMONT, H., *Etudes Françaises*

EHRLICH-LIPP, S., *Modern Languages (Spanish)*
ELIAS, J., *English*
ELLIOTT, C., *Religion*
EMIRKANIAN-BELLENGER, L., *Etudes Françaises*
ENTUS, E., *Mathematics*
ERBAN, D., *Mathematics*
ESSEGULIAN, H., *Modern Languages*
ESWARAN, C., *Engineering*
EUNSON, L., *Quantitative Methods*

FABRIKANT, V., *Engineering*
FAHIM, A.E., *Engineering*
FAIRCHILD, A., *Art Education*
FAKIRIS, C., *Computer Science*
FARFAN, H., *Electrical Engineering*
FARINA, C., *English*
FARRINGTON, E., *English*
FAURE, M., *Cinema and Photography*
FAVREAU, M., *Psychology*
FEHER, K., *Electrical Engineering*
FIMA, S., *Biology*
FISET, J., *Education*
FITZSIMMONS LECAVALIER, P., *Sociology and Anthropology*
FLEISCHER, G., *Mathematics*
FLOMEN, M., *Cinema and Photography*
FORBES, V., *Mathematics*
FORSYTHE, D., *Sociology and Anthropology*
FORTIER, P.A., *Modern Dance*
FOSS, B.F., *Art History*
FOURNIER, P., *Etudes Françaises*
FOY, K., *Library Studies*
FRANCE, W.S., *Exercise Science*
FRANKA, P., *Sociology and Anthropology*
FRANKMAN, P., *Modern Languages (Spanish)*
FREEMANTLE, G., *Geography*
FRY, D., *Biology*

GAERTNER, E., *Biology*

GALARDO, L., *Finance*
GALLOWAY, M., *Journalism*
GAMBLE, D.S., *Chemistry*
GARAVITO, J.L.S., *Modern Languages (Spanish)*
GARGOUR, C.S., *Electrical Engineering*
GARTNER, J., *Health Education*
GATES, C., *Etudes Françaises*
GAUTHIER, C., *Etudes Françaises*
GERBER, G., *Psychology*
GERMINARIO, R., *Biology*
GHADERPANAH, S.S., *Computer Science; Engineering*
GHAN, L., *English*
GHORAYEB, S., *Etudes Françaises*
GIBBONS, R., *Cinema and Photography*
GIESE, H., *Management*
GILMORE, C., *Library Studies*
GIRARD, A., *Exercise Science*
GIROLAMI, M.A., *Library Studies*
GLASS, R.S., *Marketing*
GODIN, A., *Etudes Françaises*
GOLDENBERG, M., *Accountancy*
GOLDMAN, A., *English*
GOLDSMITH, B., *Engineering*
GOLDSTEIN, J., *Sociology and Anthropology*
GOREKI, Z.K., *Quality Control*
GORRY, M., *Etudes Françaises*
GOTTHEIL, M., *English*
GOUANVIC, J.-M., *Etudes Françaises*
GOULD, R., *Teaching of English as a Second Language*
GOWRISANKARAN, C., *Engineering*
GRANT, N., *Teaching of English as a Second Language*
GRAUB, S.M., *Health Education*
GRAVEL, F., *Etudes Françaises*
GREEN, P., *Geography*
GREENSPAN, H., *Mathematics*
GREGOIRE, P., *Art Education*
GREIG, A., *Mathematics*
GROSS, P., *Applied Social Science*
GUAY, G.L., *Political Science; Management*
GUERREIRO, J., *Mathematics*
GUT, R., *Accountancy*
GUTMAN, C., *Psychology*

HAILPERN, R., *Teaching of English as a Second Language*
HAIMAN, H.J., *Accountancy*
HALE, E.C., *Quantitative Methods*
HALLS, H.J., *Marketing*
HAN, F., *Health Education*
HANDELMAN, O., *Accountancy*
HARROW, M., *Mathematics*
HARROW, R., *Mathematics*
HARTLEY, D., *Education*
HARUSTIAK, S., *Management*
HARVEY, A., *Mathematics*
HAWORTH, C., *Communication Studies*
HAY, R., *Computer Science*
HEARNE, D., *English*
HECHT, R., *Accountancy*
HEPPNER, A.L., *Etudes Françaises*
HERBERT, S.L., *Finance*
HERLINGER, M., *Library Studies*
HERSHORN, M., *Political Science*
HOBBINS, J., *Library Studies*
HOBBS, J., *Education*
HOCKSTEIN, A., *Economics*
HODGSON, J.R., *Management; Marketing*
HOFFER, S., *English*
HOFFMAN, S., *Library Studies*
HOLLAND, J.H., *Finance*
HONIG, B., *Political Science*
HOTZ, A., *Etudes Françaises*
HOTZ, A., *Etudes Françaises*
HUTCHMAN, L., *English*
HWANG, W., *Electrical Engineering*

IACOVINO, A., *English*
IBRAHIM, A.B.M., *Management*
ISLAM, M., *Accountancy*

JACOBS, D., *Psychology*
JACOBSON, G.A., *Civil Engineering*
JAYAKUMAR, R., *Computer Science*
JENNINGS, R.S., *English*
JETTE, C., *Engineering*
JOHNSON, K., *English*
JOLICOEUR, F., *Health Education*
JOSEPH, N., *Religion*
JOURDE, L., *Etudes Françaises*

KALLUS, H., *English*
KAMBERK-KILICCI, M., *Education*
KANDALOPAS, G., *Economics*
KANTROWITZ, J., *Religion*
KAPLAN, S., *Accountancy*
KATTAN, G., *Etudes Françaises*
KAUFMANN, H., *Etudes Françaises*
KEARNEY, H.F., *History*
KEARNS, L., *English*
KEIRA, H., *Civil Engineering*
KELLEHER, D., *Applied Social Science*
KEMERER, R.W., *Education*
KENNEY, D., *Mechanical Engineering*
KERMANI, M., *Quantitative Methods*
KHEMANI; R.K., *Economics*
KIERAN, C., *Mathematics*
KIERANS, C., *Sociology and Anthropology*
KINDRA, G.S., *Marketing*
KINGSLEY, D., *English*
KIRKEY, D.L., *Marketing*
KISS, A., *Health Education*
KIVENKO, K., *Mechanical Engineering*
KLUEPFEL, P., Biology
KNIGHT, A.R., *English*
KNOPPERS, B., *Health Education*
KOSITSKY, N., *Mathematics*
KOZLOWSKI, R., *Accountancy*
KRAUSZ, P., *Painting and Drawing*
KRAVITZ, W.S., *Management*
KRISHNAMOORTHY, S.G., *Computer Science*
KRUPSKI, J., *English*
KUSHELNYK, I., *Management*

LAINE, R., *Etudes Françaises*
LALONDE, R.A., *Management*
LAMB, R., *Liberal Arts College*
LAMPEL, J., *Engineering*
LANCTOT, M., *Cinema and Photography*
LANGLAIS, H., *Etudes Françaises*
LANGUEDOC, R., *English*
LANN, R., *Accountancy*
LANTHIER, J.P., *Engineering; Management*
LAPLANTE, P., *Computer Science*
LAPLANTE-L'HERAULT, J., *Etudes Françaises*
LAPP, J., *Psychology*
LAPPIN, M.K., *Etudes Françaises*
LAROCHE, A.H., *Marketing*
LARSEN, C.A., *Education*
LASZLO, G.P., *Quality Control*
LAU, H.T., *Computer Science*
LAUZIERE, A., *Etudes Françaises*
LAUZIERE, J., *Etudes Françaises*
LAWRENCE, L.-A., *Library Studies*
LAYERS, C., *Education*
LAZAR, N., *Management*

LAZZARONI, A.M., *Modern Languages (Spanish)*
LEB, D., *Etudes Françaises*
LECAVALIER, J., *Etudes Françaises*
LECHEVALIER, T., *Etudes Françaises*
LECKIE, R., *English*
LEE, R.W., *Computer Science*
LE NIR, A., *Mathematics*
LEQUIN, L., *Women's Studies*
LEQUIN-JACEL, L., *Etudes Françaises*
LEQUOC, S., *Mechanical Engineering*
LEUNG, P.C., *Computer Science*
LEVESQUE, N., *Sociology and Anthropology*
LEWIS, M., *English*
LIBBEN, G., *Teaching of English as a Second Language*
LIBMAN, E., *Psychology*
LIGHTMAN, J., *Religion*
LIMACHER, J., *Health Education*
LIN, Y., *Mathematics*
LINDSAY, I.R., *English*
LIOPIRIS, E., *Computer Science*
LIPSEY, S.J., *Etudes Françaises*
LIPSKY, L., *English*
LOGAN, A., *Sociology and Anthropology*
LOVASCO, F., *Mathematics*
LOWE, A., *English*
LOWE, K., *Exercise Science*
LUNN, F., *Teaching of English as a Second Language*

MACGIBBON-TAYLOR, K.B., *Mathematics*
MACK, G.W., *Computer Science*
MACKENZIE, C., *History*
MACLEOD, M., *Biology*
MACMILLAN, D., *Engineering*
MACOOSH, G., *Mathematics*
MAHARAJ, T., *Political Science*
MAHLER, P., *Quantitative Methods*
MALER, L., *Mathematics*
MALWAL, K.L., *Computer Science*
MANDEL, J., *Accountancy*
MANN, P.G., *Recreation and Leisure Studies*
MANNADIAR, S.K., *Accountancy*
MANSON, M., *Education*
MANSOUR, T., *Economics*
MARCUS, R.A., *Marketing*
MARELLI, M.-P., *Etudes Françaises*
MARIN, M.A., *Computer Science*
MARJERISON, A., *Quantitative Methods*
MARKHAM, W., *Accountancy*
MARLEY, C., *Library Studies*
MAROUN, T., *Health Education*
MARTEL, R.R., *Chemistry*
MASSINON, C., *Etudes Françaises*
MATZIORINIS, K.N., *Economics*
MAVRIAS, S., *Education*
MAXWELL, D.E.S., *English*
MAYER, F., *Mathematics*
MCAULEY, J., *English*
MCBREARTY, G., *Mathematics*
MCCALLUM, P., *Journalism*
MCCREARY, E., *Education*
MCCULLOUGH, E., *History*
MCGILLIS, D., *Electrical Engineering*
MCGILLIVRAY, D., *Journalism*
MCKENZIE, R., *Accountancy*
MCKIM, A.E., *English*
MCKINNON, G.M., *Mechanical Engineering*
MCRANN BOYCE, A., *Accountancy*
MCSHANE, P., *Lonergan University College*
MEARNS, R., *Mathematics*
MEDINA, D., *Health Education*
MELOCHE, G., *Management*
METZE, A., *Painting and Drawing*
MIAO, J., *Library Studies*
MILLAR-MARTEL, C., *Health Education*
MILLER, B.R., *Accountancy*
MILLER, G., *Mathematics*
MILLER, J.A., *English*
MILLER, M., *Marketing*
MILTON, B., *Sociology and Anthropology*
MINC, M., *Management*
MIRDAMADI-KHOZAN, K., *Management*
MIRO, D., *Printmaking*
MOHAJER VA PESARAN, A., *Economics*
MOKRUSA, F., *Design*
MOLLER, F., *Quality Control*
MONG, Y., *Computer Science*
MONTGOMERY, R., *Liberal Arts College*
MOORE, E., *History*
MORIN, G.G., *Marketing*
MORRIS, D., *Management*
MOSER, P.J., *Marketing*
MUKERJI, S., *Engineering*
MUKHERJEE, S.K., *Computer Science*
MURRAY, S., *Teaching of English as a Second Language*
MUSTEN, R.F., *Management*
MYERSON-ARDUINI, J., *English*

NADLER, A.L., *Quantitative Methods*
NAGAR, A.L., *Economics*
NASH, D., *Teaching of English as a Second Language*
NATEGH, S.E., *Quantitative Methods*
NELSON, H., *Education*
NELSON, S., *English*
NEMETH, G., *Psychology*
NICHOLLS, W., *Economics*
NISH, B., *Etudes Françaises*
NISHIZAKI, C., *Library Studies*
NKIWANE, S.M., *Political Science*
NOWAK, T., *Accountancy*
NOZETZ, H., *Accountancy*
NUNES, M., *Mathematics*

O'CONNOR, K.F., *Computer Science*
O'CONNOR, T.G., *English*
OVERBURY, O., *Psychology*

PAINCHAUD-MINGARELLI, S., *Etudes Françaises*
PALAKAL, M., *Computer Science*
PANT, B.C., *Chemistry*
PAPGEORGIOU, A., *Psychology*
PARAUD, A., *Etudes Françaises*
PASK, G., *Education*
PASTERNAK, S., *Finance*
PATHAK, B., *Engineering*
PEARSON, D., *Education*
PEARSON. J., *Mathematics*
PEETS, D., *Biology*
PELLMAN, K.J., *Theatre*
PELUSO, M.E., *Political Science*
PENNEY, L., *Etudes Françaises*
PEPALL, R., *Art History*
PERVEZ, A., *Computer Science*
PETERS, D., *Computer Science*
PHILLIPS, A., *Journalism*
PHULL, P., *Mathematics*
PHULL, S., *Mathematics*
PICARD, M., *Teaching of English as a Second Language*
PLAZA DE STERN, M., *Modern Languages (Spanish)*
PLOUFFE, B., *Modern Languages (German)*
PLOURDE, M., *English; Etudes Françaises*
POMERANTZ, D., *Psychology*
PORTNER, R., *English*
POSNER, S., *Mathematics*
POSTANS, B., *Teaching of English as a Second Language*
POTTIER, J., *Etudes Françaises*
PRATT, G., *Modern Languages (Spanish)*

PRICE, A., *Health Education*
PRIEL, V., *Quantitative Methods*
PROCYSHYN, E.L., *Geology*
PUTTERMAN, A., *Psychology*

QUACKENBUSH, D., *Printmaking*
QURESHI, B.A., *Computer Science*

RABOY, M., *Journalism*
RACICOT, M., *Etudes Françaises*
RAHMAN, A., *Economics*
RAHN, C., *Health Education*
RAM, A., *English*
RAMASWAMY, K., *Engineering*
RAMTOOLAH, T., *Economics*
RAO, A.S., *Mathematics*
RASHID, M., *Finance*
RASHID, S., *Economics*
RASHKOVEN, F., *Applied Social Science; Management*
RAXLEN, R., *Cinema and Photography*
RAYNOR, T., *Management*
REDDY, P.S., *Engineering*
REHEL, R., *Exercise Science*
REINBLATT, H., *Administration; Management*
REZA, F., *Electrical Engineering*
RHODES, B., *Mathematics*
RICCI, J., *Exercise Science*
RICHARD, J.-Y., *Etudes Françaises*
RICHMOND, B., *English*
RIORDON, E.C., *Marketing*
ROBERT, J., *Etudes Françaises*
ROBERTSON, K., *Education; Mathematics*
ROBINSON, J., *English*
ROBINSON, S., *Accountancy*
ROCH, C., *Etudes Françaises*
ROHAN, I., *Exercise Science*
ROLOFF, G., *English*
ROMEO, A., *Accountancy*
RONALD, J.F., *Marketing*
ROSENBERG, M., *Sociology and Anthropology*
ROSENBERGER, W., *Accountancy*
ROSENSTEIN, K., *Teaching of English as a Second Language*
ROSSIN-ARTHIAT, M., *Quantitative Methods*
ROSTENNE, J., *Marketing*
ROY, A., *Etudes Françaises*
ROY, A.K., *Computer Science*
RUDDICK, S., *Geography*
RUDDY, J., *Mathematics*

SAADA, J., *Etudes Françaises*
SADDIK, J., *Etudes Françaises*
SADDIK, M., *Etudes Françaises*
SAHGAL, A., *Marketing*
ST. PIERRE, A., *Accountancy*
SAKS, R.D., *Marketing*
SALUSBURY, D., *Mathematics*
SAMUELS, A., *Communication Studies*
SANCHEZ, J.C., *Modern Languages (Spanish)*
SANCHEZ, M.F., *Modern Languages (Spanish)*
SAPP, J., *Engineering*
SARNA, L., *Management*
SAUNDERS-OPPENHEIM, M., *Theological Studies*
SAVOIE, L., *Etudes Françaises*
SAXENA, V.C., *Engineering*
SAYA, M.A., *Accountancy*
SCHEEL, B., *Finance*
SCHENK, S., *Psychology*
SCHILD, D.A., *Management*
SCHMIDT, S., *Library Studies*
SCHOLBERG, A., *English*
SCHULMAN, R., *Applied Social Science*
SCHULTZ, J.I., *Exercise Science*
SCHWARTZ, S., *Applied Social Science*
SCOTT, M.J., *Health Education*
SCOTT, W., *Accountancy*
SEAMAN, A.R., *Applied Social Science*
SEDGWICK, D., *Art History*
SEFERIAN, N., *Modern Languages*
SEGAL, C., *Applied Social Science*
SEGAL, C., *Sculpture and Crafts*
SEGAL, J., *Applied Social Science*
SEGAL, M., *English*
SEGUIN, G.E., *Electrical Engineering*
SEHGAL, S.N., *Biology*
SEILER, R., *Quality Control*
SELDIN, J., *Mathematics*
SELIGMAN, E., *Teaching of English as a Second Language*
SEPPANEN, R., *English*
SERRUYA, C., *Etudes Françaises*
SHANKAR, K., *Electrical Engineering*
SHARAN, A.M., *Engineering*
SHARMA, M.C., *Quantitative Methods*
SHAUGHNESSY, R., *Mathematics*
SHEASBY-COLEMAN, C., *English*
SHENKER, S., *Health Education*
SHORT, G.D., *Exercise Science*
SILAS, M., *English*
SIMARD, R.C., *Etudes Françaises*
SIMON, M., *English*
SIMPKINS, H.J., *Marketing*
SIMPSON, M., *Teaching of English as a Second Language*
SIMS, M.J., *English*
SINCLAIR, I., *Management*
SINGH, K., *Biology*
SINGH, R., *Quantitative Methods*
SIRSLY, C.-A., *Accountancy*
SISTI, A., *English*
SKELTON, F.S., *Biology*
SMALRIDGE, G.B., *Library Studies*
SMITH, C., *Sociology and Anthropology*
SMITH, D., *Quantitative Methods*
SMITH, M., *Art History*
SMITH, W.C., *Quality Control*
SOMERS, B., *Economics*
SONI, R., *Quantitative Methods*
SPENCE, A., *Psychology*
SPENCER, E., *English*
SPRINGATE, M., *Theatre*
SRINIVASAN, U., *Physics*
STAMM, C., *Education*
STEARNS, A., *English*
STEFANOVIC, V., *Electrical Engineering*
STEINBERG, B.B., *Marketing*
STEINER, J., *Education*
STERN, M.J., *Accountancy*
STEVENS, D.E., *Management*
STIEBELING, D., *Art History*
STOBER, S., *Psychology*
STORME, F., *Etudes Françaises*
STREI, G., *Teaching of English as a Second Language*
STROLOVITCH, S., *Education*
SULLIVAN, J.D., *Exercise Science*
SULLIVAN, M., *Sociology and Anthropology*
SUTHERLAND, A., *Psychology*
SWEDLUND, B.E., *Chemistry*
SZCZEPARA, B., *Mathematics*

TACIUM, D., *English*
TALUKDER, A., *Mathematics*
TANG, B., *Computer Science*
TANIELIAN, V., *Modern Languages*
TARD, G., *Etudes Françaises*

TARDIF, Y., *Management*
TASH, M., *Teaching of English as a Second Language*
TEKEL, R., *Women's Studies*
TEVEL, A., *Administration*
THIBEAULT, P., *Communication Studies*
THO, V.V., *Mathematics*
THOMPSON, A., *Computer Science*
THWAITES, H., *Communication Studies*
TIWARI, U., *Mathematics*
TOMASEK, O., *Quantitative Methods*
TORBIT, N., *Health Education*
TOWNSEND, J.A., *Marketing*
TRAMOTANA, V.S., *Management*
TRAN, T., *Etudes Françaises*
TREMAINE, T., *Mathematics*
TREMBLAY, M., *English*
TREMBLAY, R.C., *Political Science*
TSCHIMMEL, I., *Modern Languages (German)*
TUCCI, C.G., *Engineering*
TURNBULL, R., *Psychology*
TURNER, D., *Civil Engineering*
TUROWETZ, A., *Sociology and Anthropology*
TZUK, R., *Education*

UDY, J., *Geology; Urban Studies; Engineering*
ULAGARAJ, M.S., *Computer Science*
ULLMANN, F., *Etudes Françaises*
UNRUCH, M., *Marketing*

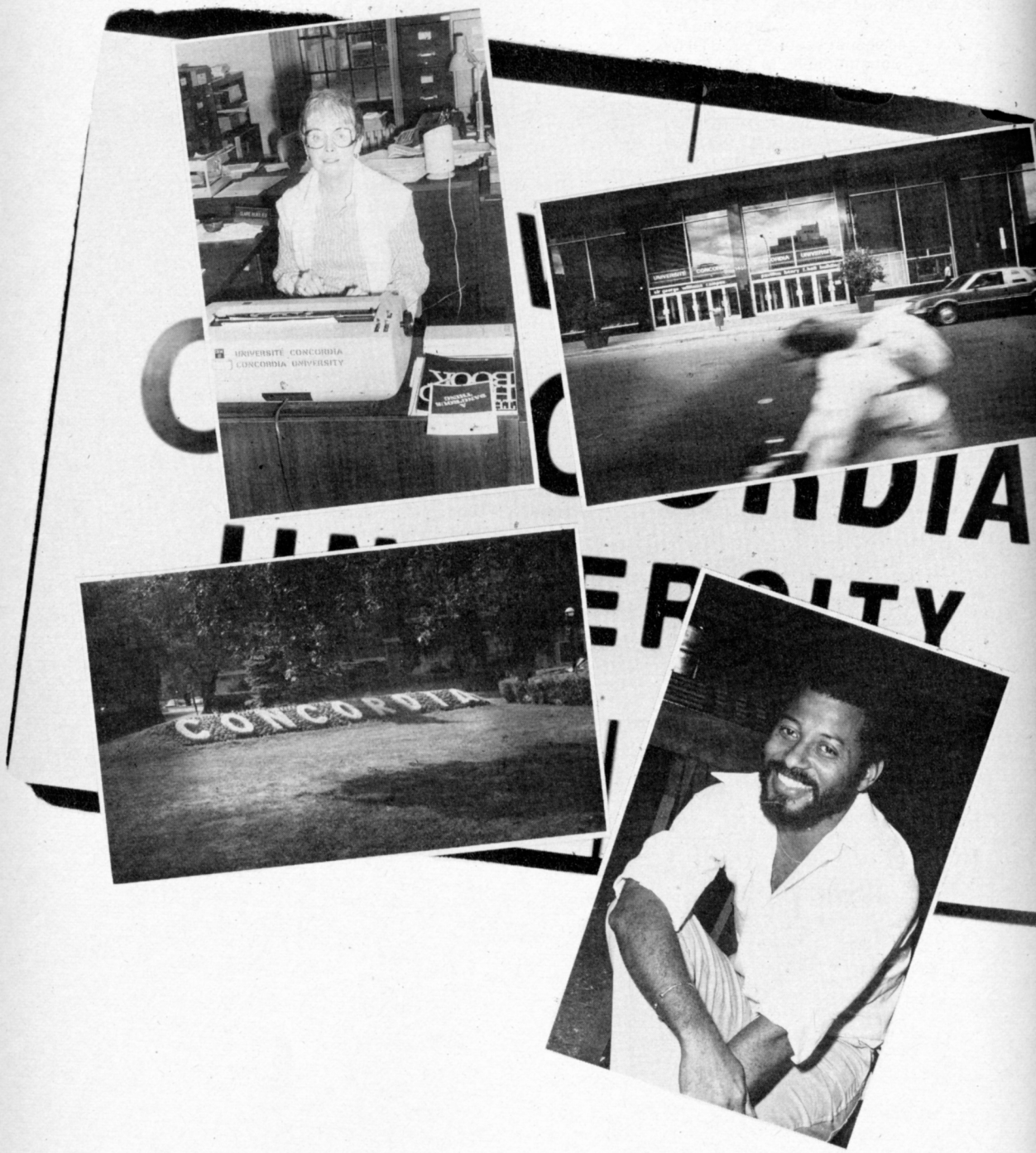
VALENTIN, R.W., *Management*
VALIQUETTE, M., *Etudes Françaises*
VALLEJO, I., *Modern Languages (Spanish)*
VAMOS, T., *Cinema and Photography*
VANDYCKE, J., *Etudes Françaises*
VARMAN, N., *Civil Engineering*
VEILLEUX, J., *Modern Languages (Spanish)*
VENETSANOPOULOS, A., *Electrical Engineering*
VERMA, S.N., *Computer Science*
VERRON, A., *Etudes Françaises*
VIGDERHOUS, G., *Management*
VILLATA, B., *Modern Languages (Italian)*
VOGEL, P., *Teaching of English as a Second Language*
VOOS, C.-A., *Etudes Françaises*

WALKER, J., *Health Education*
WALOP, W.C.A.M., *Health Education*
WALSH, J., *Theological Studies*
WALSH, M., *Education*
WARD J.D., *Quality Control*
WATERS, G., *Psychology*
WATTS, F., *English*
WEBBER, M., *English*
WEBSTER, J., *Education*
WEINBERG, S.D., *Education*
WEISS, B., *Education*
WENER, R., *Accountancy*
WHITE, C., *Teaching of English as a Second Language*
WHITE, L., *Etudes Françaises*
WILLIAMS, M., *Accountancy*
WILSON, J., *English*
WILSON, P., *Management*
WINEBERG, R., *Accountancy*
WING, S., *English*
WINKLER, D., *Cinema and Photography*
WISE, A., *Psychology*
WOLLHEIM, P., *Cinema and Photography*
WONG, E.C.W., *Accountancy*
WONG, S., *Finance*
WORENKLEIN, A., *Education*
WRIGGLESWORTH, J., *Mathematics*
WRIGHT, M., *Library Studies*
WRIGHT, R.K., *Geography*

XIQIN, H., *Biology*

YAFFE, V., *English*
YATES, D., *Journalism*
YEKOVICH, F., *Education*
YOUNG, S., *Applied Social Science*

ZENONE, S.G., *Physics*
ZGARKA, A., *Etudes Françaises*
ZIMMERMAN, M.L., *Marketing*
ZOUGBI, S.G., *Computer Science*
ZUCKER, C., *Cinema and Photography*
ZWIRZ, F., *Accountancy*


UNIVERSITÉ CONCORDIA
CONCORDIA UNIVERSITY
CONCORDIA

13 Admission Regulations

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13 Admission Regulations

Assistant Vice-Rector
Admissions and Liaison
WILLIAM J. SHORE

Director of Admissions
THOMAS E. SWIFT

Assistant Directors of Admissions
J. MINEAU
L. PRENDERGAST

Admissions Office
Loyola Campus
7141 Sherbrooke Street West
Montreal, Quebec
H4B 1R6
482-0320, Local 409

The office is located at: AD-206

Graduate Students
Graduate Studies Office
1455 de Maisonneuve Blvd. West
Montreal, Quebec
H3G 1M8
879-7314

The office is located at:
Room S205
2145 MacKay Street
Montreal

Admissions Officers
L. BECSKEI
L. CAMPBELL
M. JONES
B. MACKENZIE
R. PINK

Admissions Interviewers
D. BENTLEY
M. CONNORS
A. LAJOIE
E. MALIK

Admissions Office
Sir George Williams Campus
1455 de Maisonneuve Blvd. West
Montreal, Quebec
H3G 1M8
879-4280

The office is located at: Room 105
1435 Drummond Street
Montreal

Liaison Office
Concordia University
Co-ordinator
P. REGIMBALD

Liaison Officers
J. COBLEY
D. DOBROFSKY
G. LE BLEU

13.1 Admission to Concordia University

The University maintains admissions offices on both of its campuses. The offices will provide application forms as well as information about requirements and procedures.

In a number of programmes the places are limited. Qualified applicants not admitted to their preferred programme will be considered for their second choice. If this involves a change of Faculty or campus, they will be so informed immediately.

Applicants wishing to change Faculty or campus should call or write the admissions office; they are not required to complete a second form.

13.2 Definitions

1. The University Year

The University year is made up of a *Regular Session* and a *Summer Session.* The Regular Session is made up of a *Fall Term* (September-December) and a *Winter Term* (January-April). The Summer Session is made up of a *Ten-week term* (May-July) and a *Six-week term* (July-mid-August).

2. Undergraduates

Students registered in a degree or certificate programme, whether on a full-time or part-time basis. *Full-time* students are those registered for 24 credits or more in the Regular Session (or 12 credits or more in either the Fall or Winter term); *part-time* students are those registered for fewer than 24 credits in the Regular Session (or fewer than 12 credits in either the Fall or Winter term).

3. Certificate Students

Students registered in a certificate programme, whether on a full-time or part-time basis.

4. Mature Students

Undergraduates who have not met the regular academic admission requirements, but have been admitted on the basis of age, experience and potential (see §14). Mature students may study on a full-time or part-time basis.

5. Extended Credit Programme Students

Students registered in an extended programme, normally requiring a minimum of 120 credits, designed for students entering from secondary institutions outside Quebec.

*6. Special Students**
Students taking courses for a specific purpose other than that of obtaining a degree or certificate (see §13.9).

**This classification is under review and subject to change.*

7. Independent Students
Students not seeking a degree or certificate, but who have been admitted to individual courses on a part-time basis (see §13.10).

8. Residence Requirement
The minimum number of credits which must be taken at Concordia University to obtain a degree or certificate awarded by the University (see §16.1.5).

13.3 Faculties and Degrees

FACULTY OF ARTS AND SCIENCE - §31
Bachelor of Arts (BA)
Bachelor of Education (BEd)
Bachelor of Science (BSc)

FACULTY OF COMMERCE AND ADMINISTRATION - §61
Bachelor of Administration (BAdmin)
Bachelor of Commerce (BComm)

FACULTY OF ENGINEERING - §71
Bachelor of Computer Science (BCompSc)
Bachelor of Engineering (BEng)

FACULTY OF FINE ARTS - §81
Bachelor of Fine Arts (BFA)

Bachelor's degrees, other than the Bachelor of Engineering, normally require successful completion of 90 credits, or 108 credits in the case of mature students (see §14), or 120 credits in the case of students admitted to the Extended Credit Programme (See §13.2 for definition and appropriate Faculty section for details on requirements.) (See §16.1.2 for the definition of credit.) For students registered full time, 30 credits constitute the normal workload in the Regular (Fall/Winter) Session. The degree of Bachelor of Engineering, however, requires from 105 to 130 credits of students having a Diploma of Collegial Studies (DEC) (or the equivalent), with the appropriate prerequisites ("profil"); the number of credits varies according to the option chosen and the previous preparation of the student.

13.4 Admission Requirements

13.4.1 APPLICANTS FROM QUEBEC INSTITUTIONS

Successful completion of a two-year pre-university programme in a CEGEP, with the award of a Diploma of Collegial Studies (DEC) (or the equivalent), including the specific courses required by the various programmes ("profil"). These "profils" are listed in the Department of Education booklet "Accueil 83 - Structures d'accueil aux études universitaires de premier cycle pour septembre 83." For the convenience of applicants, requirements are listed in the various Faculty sections of this calendar. Applicants who have completed a professional programme in a CEGEP are also admissible to the University.

Students admitted to a particular programme at the University and who subsequently wish to change to another programme may have to complete specific prerequisites in addition to their regular programme requirements.

13.4.2 APPLICANTS FROM OTHER CANADIAN PROVINCES

Ontario Grade 13 graduates with a minimum overall average of 65% in appropriate subjects may be admitted to a 90-credit programme, but applicants for admission to the Bachelor of Engineering degree, or the Bachelor of Computer Science degree (Digital Systems, General Science or Mathematics options) will in general require four years of full-time study to obtain their degree. Applicants from other Canadian provinces who have completed Grade 12 with an overall average of at least 65% in appropriate subjects, or the Junior Division at Memorial University, Newfoundland, will be considered for admission to the Extended Credit Programme, normally requiring 30 additional credits.

Content of additional credits will be found in the appropriate Faculty section of this calendar.

While the University is flexible regarding entrance papers, and no set pattern of high school courses is required, the courses presented should be appropriate for the Faculty to which application has been made.

13.4.3 TRANSFERS FROM OTHER UNIVERSITIES

Applicants transferring from other accredited universities will be considered for an appropriate level of placement within the undergraduate programme at this University. For example, one year of undergraduate study following Grade 12 will normally qualify an applicant for entrance to the first year of a 90-credit degree programme. One year of study completed in an Ontario university following Grade 13 will, in general, qualify an applicant for admission to the second year of a 90-credit programme. (For Engineering see §13.3). There are some special conditions attached to the granting of transfer credits.

The number of credits awarded depends on the character, quality and quantity of the work completed. An applicant who has attended another university and wishes to transfer to an undergraduate programme at Concordia should understand the following conditions:

1. A student will not be given credit for courses taken in another university during the same academic term in which he has registered for courses at Concordia University, unless special permission has been obtained in advance from this University. The Admissions Office should be contacted for information on the correct procedure.

2. Any student currently registered at this University wishing to take a course at another university during a different academic term—for example, the Summer—must get prior

approval. The Admissions Office should be contacted for information on the correct procedure.

3. A student may not apply transfer credits towards the residence requirements at the University unless special permission has been obtained from the appropriate Faculty Council.

4. Out of the total number of credits required for a bachelor's degree, a minimum of 45 credits must be taken at Concordia University for all bachelor's degrees except that of the Bachelor of Engineering, where the minimum is 60 credits. Unless otherwise authorized by the Faculty to which the student has been admitted, these will be the *last* 45 credits (or the *last* 60 in the case of the Bachelor of Engineering).

5. The proportion of degree credits which must be taken at Concordia University in honours, specializations, majors, minors or other elements of concentration will be determined by individual Faculties but should be not less than 50%.

6. The Admissions Office, in consultation with the four Faculties, is responsible for the processing of pro-tanto credits.

13.4.4 TRANSFERS FROM OTHER POST-SECONDARY INSTITUTIONS

Credits obtained in junior colleges, community colleges, or Colleges of Applied Arts and Technology outside Quebec will, in general, be given the same recognition towards undergraduate programmes as they would receive in their respective province.

13.4.5 EXEMPTIONS AND PRO-TANTO CREDITS

The award of "pro-tanto credits" means that a course previously taken in another institution, or, in some cases, in another type of Concordia programme, is being counted towards a Concordia degree programme, or programme of concentration within that degree programme. Pro-tanto credits are normally specific (e.g. pro-tanto credit for Concordia course 'x' is given for course 'y' taken at another university) but they may be general, where the work done elsewhere is a valid part of an individual student's programme but does not correspond exactly to Concordia divisions of course content.

"Exemption" covers any case where it is recognized that a student has one way or another covered the work of a course required in a Concordia programme, with an appropriate level of performance. In such cases students will replace the course from which they have been exempted with another course. Faculty or departmental regulations will indicate the nature of the replacement course—for example, another course in the same field, a restricted elective (e.g., "six credits in history or political science") or an open elective.

13.4.6 APPLICANTS FROM OUTSIDE CANADA

Applicants from institutions outside Canada are referred to §13.11.

13.5 Application For Admission

It is recommended that application for admission be made as early as possible on forms provided by the Admissions Office. Academic certificates and other supporting documents not available at the time of application must be submitted as soon as they become available. (Applicants enrolled in a CEGEP should refer to §13.6.2.) Arrangements should be made with the institution concerned to send directly any university transcripts, or where applicable, CEGEP transcripts. Where it is required, applicants will provide a copy of their High School Leaving Certificate with a certified list of the final marks in each subject. (A clear photocopy is acceptable.) Applicants who submit a certificate in a language other than English or French should attach a notarized translation into either English or French. If the certificate does not detail the subjects taken and the grades achieved, a certified statement of these from an authorized official of the institution should also be appended.

Applicants are advised to apply early in order to allow sufficient time for evaluation and review of their applications by the Admissions Office. Final dates for the receipt of applications may be obtained by contacting the Admissions Office. **Canadian Citizens/ Permanent Residents (Landed Immigrants)** are required to provide documentary proof of their status in Canada. This must be done by submitting a photostatic copy to the Admissions Office of one of the following documents:

Birth Certificate
Baptismal Certificate
Citizens/Permanent Resident (Landed Immigrant) papers
Passport (Canadian)
Affidavit

The following documents are not considered acceptable:

Driver's Licence
Medicare Card
Social Insurance card

13.5.1 APPLICATION FEE

There is a non-refundable application fee of $15 (Canadian) for those who are not Canadian citizens or Permanent Residents (including Landed Immigrants). This fee will be applied towards the tuition fees upon registration.

13.5.2 ENTRY DATES

September is the normal point of entry to full-time and part-time studies. Entry in January or in the Summer Session is also possible. In some cases, entry in January may require the completion of courses in the subsequent Summer Session.

The normal entry date for International students is September.

13.5.3 JANUARY ADMISSION

New students are admitted in January where places are available. Admission in January has been introduced primarily to accommodate December graduates of Quebec CEGEPs, but is not restricted to this group.

The normal course load in the Winter Term (January to April) is 15 credits. Up to a maximum of 12 credits may be taken in the Summer Session. In some cases (e.g. Engineering), January entrants are required to take summer courses.

International students, other than those applying from CEGEP, are admitted in January in exceptional cases only.

13.5.4 ADMISSION DEPOSIT

Applicants who have been granted admission to full-time studies and to certain high-demand part-time programmes are required to submit a cheque or money order for $50 (Canadian) to confirm their intention to enter the University. This admission deposit is non-refundable, but will be applied towards tuition fees at the University.

Applicants who receive an early conditional acceptance, but who are subsequently refused admission because they have not completed the minimum academic requirements for entrance, will have their admission deposit refunded.

13.6 Criteria for Admission

13.6.1 TRANSCRIPTS

Two official copies of each transcript, in English or in French, must be sent directly to the appropriate Admissions Office by the institution which the applicant previously attended or at which the applicant is currently registered. In the latter case, the results of previous terms or semesters, together with a list of the courses in which the applicant is currently registered, must be submitted immediately. An official transcript including the results of the final term or semester must be submitted as soon as possible.

Although an applicant's records from several universities may be summarized on one transcript, an application will not be considered until two official transcripts from each institution attended have been received. These are required even though no credit may have been earned.

13.6.2 CEGEP TRANSCRIPTS

1. Applicants for Summer and Fall Terms

a) Mid-Year Transcripts

In the case of applicants currently enrolled in a CEGEP (Collège d'Enseignement Général et Professionnel) who are applying for the Summer or Fall Term, the University will obtain their most recent CEGEP record of study (the results of the previous terms or semesters, together with a list of courses being followed during the final term or semester) from the Computer Centre of the Ministry of Education. The CEGEP records will be acquired on one of several scheduled dates between March and early April. Applicants should therefore complete the application forms as early as possible in order to avoid delay in the transfer of the CEGEP record. The "code permanent", which is the educational code number for Quebec students, must be correctly entered on the application form as this identification number is used to obtain the CEGEP transcript. A copy of the computerized CEGEP record will be issued to the applicant for verification.

All applicants should submit, at the time of application, or as soon thereafter as possible, a student copy of their CEGEP transcript. This transcript should show their record to date, including grades for all courses followed during the previous term. In addition, there should be an accompanying list of 'in progress' courses. Applicants are responsible for ensuring that the student copy is both accurate and complete.

b) Final Transcripts

Final transcripts are required by the Admissions Office as soon as they become available.

Former CEGEP students who are not attending CEGEP because they have graduated, or have discontinued their CEGEP studies, must arrange for their former CEGEP to send the transcript of their grades directly to the University.

2. Applicants for the Winter Term (January Admission)

Applicants for the Winter Term (January Admission) must arrange for their CEGEP to send the transcript of their grades directly to the University. The applicant is personally responsible for ensuring that the transcript is requested from and submitted by the CEGEP.

13.6.3 ENGLISH LANGUAGE PROFICIENCY

The language of instruction at Concordia University is English, although examinations and assignments may be written in French. In certain courses, however, in programmes in English language and literature, journalism, and modern languages and literatures, written work is required in English, or in the modern language being studied.

Applicants whose first language is not English (with the exception of Canadians whose first language is French) must demonstrate their proficiency in English. Although the educational systems of many countries conduct their schooling mainly in English, the University reserves the right to require any applicant to demonstrate proficiency in the English language as a criterion for admission to the University.

For those applicants who are required to demonstrate their language proficiency, there are several methods of doing so:

1. *Concordia English Language Diagnostic Test*
   (available only to persons applying from within the Montreal area)

a) Persons applying from within the Montreal area who are required to write an English language test will automatically be scheduled to sit for the Concordia English Language Diagnostic Test upon making application to the University.

b) An application will not be considered complete until these test results have been received.

c) Canadian applicants whose first language is French are not required to write this test, but may do so for placement.

d) There is a testing fee of $15.00 required of all who write the Concordia English Language Diagnostic Test. This testing fee is compulsory due to the high cost of administering an English language diagnostic test. Further information concerning the payment of this fee will be provided when applicants are scheduled to write the test.

The following two tests are designed for applicants residing outside the Montreal area.

2. *Test of English as a Foreign Language (TOEFL)*

This test is administered at centres in most countries of the world. It is the responsibility of the applicant to write directly to the address listed below for the necessary application forms and information.

Test of English as a Foreign Language
Educational Testing Service
Box 899
Princeton, New Jersey 08540
U.S.A.

3. *The University of Michigan English Language Test*

This test is administered on an individual basis to applicants in most countries of the world. It is the responsibility of the applicant to write directly to the address listed below for necessary application forms and information.

English Language Institute
Testing and Certification
The University of Michigan
2011B North University Bldg.
Ann Arbor, Michigan 48109
U.S.A.

Reporting of TOEFL and University of Michigan Test Results

a) The results must be reported directly to the Admissions Office by the TOEFL or University of Michigan Test Centre. Candidate copies of results or results that are more than two years old will not be accepted as proof of language proficiency.

b) To ensure that the TOEFL results are forwarded directly to Concordia University, the 'Institution Code' must be indicated at the time of writing the test: 0956.

c) Inasmuch as an application will not be considered until the test results have been received, applicants should contact the TOEFL or University of Michigan Test Centres as soon as possible in order that the date of receipt of test results not delay or prevent consideration of their application.

The aforementioned tests are designed for applicants residing outside the Montreal area.

4. *General Certificate of Education (or Equivalent)*

An Ordinary Level pass in English Language will satisfy language proficiency requirements.

5. *Other*

Successful completion of one year of full-time study at a university, or two years at a secondary or other post-secondary institution, where the instruction has been in English may satisfy language proficiency requirements. In the case of secondary institutions, these will normally be the last two years.

13.7 Selection Process and Notification

Admission to undergraduate studies is based on a careful review of all credentials presented on behalf of a candidate. An application for admission is not given final consideration until all the required items have been submitted. However, the University does have an early conditional admission plan (see below). The University reserves the right to refuse admission to or registration in a particular programme even when the stated requirements for entrance have been satisfied.

13.7.1 EARLY CONDITIONAL ADMISSION

Applicants seeking admission to undergraduate programmes may be granted conditional acceptance on the basis of former records of study. Such records should include mid-year results for the current year. Final admission is contingent upon successful completion of the final term or semester of study and satisfaction of the prescribed academic admission requirements. Candidates granted early conditional admission are in general notified before May 15.

13.7.2 LIMITED ENROLMENT

In some programmes the number of qualified applicants may exceed the number of places available. Possession of the stated requirements does not in itself guarantee admission to a particular programme.

13.8 Mature Entry

Information on Mature Entry will be found in §14.

13.9 Admission as a Special Student*

Persons in the categories listed below may apply for Special Student status by contacting the Admissions Office. Permission to enrol is on a sessional basis and application must be made to the Admissions Office for each subsequent registration sought.

1. Students currently registered in certain certificate programmes sponsored by external associations (e.g. programmes in the Faculty of Commerce and Administration). Documentation: proof of membership in the association.

2. Undergraduate students from other universities who have written approval from their home university to take courses at Concordia University. Documentation: a letter from the Registrar of the home university.

3. Students pursuing further studies who have completed at least a bachelor's degree, whether at Concordia University or at another institution. Documentation: a transcript of grades or a copy of the diploma. The transcript must be shown at registration as proof of completion of prerequisite courses.

4. Persons whose applications are being processed by the Admissions Office and who have been advised to register temporarily as Special students. Documentation: a letter from the Admissions Office.

In no case can a Special student be guaranteed a place in a course.

Special students must present documentation as to their status in Canada at the time of registration. One of the following documents - the original and a photostatic copy - must be presented at the time of application:

Birth Certificate
Baptismal Certificate
Citizenship or Permanent Resident (Landed Immigrant) papers
Passport
Affidavit
Diplomatic Visa

Documents which are not acceptable are Driver's Licence, Medicare card, and Social Insurance card.

**This classification is under review and subject to change.*

13.10 Admission as an Independent Student

Persons wishing to take individual courses without committing themselves to a degree or certificate programme may register, if qualified, as Independent students, provided that they are Canadian Citizens, Permanent Residents (Landed Immigrants) or holders of a diplomatic visa. They should apply for Partial student status by contacting the Admissions Office. They should bring with them evidence of having met university entrance requirements. This evidence will be evaluated by the Admissions Office. There are two categories of Independent student:

1. those meeting regular admission requirements.
2. those meeting Mature Entry age requirements (see §14), and who can satisfy the registering officer that they have, through other experiences, acquired the necessary background for the course(s) for which they wish to register.

One of the following documents - the original and a photostatic copy - must be presented at the time of application:

Birth Certificate
Baptismal Certificate
Citizenship or Permanent Resident (Landed Immigrant) papers
Passport
Affidavit
Diplomatic Visa

Documents which are not acceptable are Driver's Licence, Medicare card, and Social Insurance card.

Independent students wishing subsequently to enter a degree or certificate programme must apply to the Admissions Office. Credits acquired by Independent students may subsequently be applied towards a degree or certificate if appropriate. In the case of the Faculty of Arts and Science, an Independent student may apply a maximum of 30 credits towards a degree.

Independent students may not register on a full-time basis. Please refer to §16 for those regulations which apply to Independent students.

13.11 Information of Special Interest to International Students

13.11.1 APPLICATION FEE

International applicants must include a $15 (Canadian) application fee. This amount will be applied towards their tuition fees upon registration for courses at the University.

13.11.2 STUDENT AUTHORIZATION

The Canadian Immigration regulations require that an International student obtain a Student Authorization (previously: Student Visa) before arriving at the Canadian port of entry. Such an authorization will not be issued at the port of entry or to foreign visitors who are already in the country. The authorization will be specific with regard to both institution and programme.

In addition, all students in possession of a letter of admission issued by any Quebec educational institution are required to present to the Canadian Immigration an additional document issued by the Quebec Department of Immigration (MIQ) and entitled "Certificat d'acceptation". A Quebec-bound student will not be issued a Student Authorization unless he or she is in possession of the Certificate or other document indicating approval from the Quebec Department of Immigration. The student copy of the Certificate should be retained by the student.

Application forms and instructions for obtaining the "Certificat d'acceptation" are issued with the letter of admission.

13.11.3 UNITED KINGDOM AND COMMONWEALTH

In order to be considered for admission into a 90-credit undergraduate programme, applicants must present five General Certificate of Education papers including at least two at the Advanced Level. The following indicates by degree, which Advanced Level papers are required.

BAdmin, BComm, BEng, BSc
— Mathematics and one other acceptable Advanced Level paper

BA, BEd, BFA
— Any two acceptable Advanced Level papers

BCompSc
Digital Systems
— Mathematics and Physics

General Business
— Mathematics and any other acceptable Advanced Level paper

General Science
— Mathematics and Physics

Mathematics
— Mathematics and Physics

Ordinary and Higher National Certificates and Diplomas, with passes at an appropriate level, will be accepted in lieu of Advanced Level papers.

Applicants from Hong Kong who have received the Hong Kong Certificate of Education (English) with good grades in five sub-

jects, and have completed one year of Form VI or hold the Hong Kong Certificate of Education (Chinese) with good grades in five subjects, and have passed the Chinese University of Hong Kong Matriculation Examination, may apply for admission to the Extended Credit Programme.

Applicants to an extended undergraduate programme in Engineering or Science are normally expected to have Mathematics and at least one Science subject; those applying to Commerce and Administration are advised to have Mathematics as part of their entrance qualifications.

Students with better than average results in five acceptable Ordinary Level papers (or the West African School Certificate, where applicable) plus one full year of formal schooling beyond Ordinary Level may be considered for admission to the Extended Credit Programme.

Content of additional credits will be found in the appropriate Faculty section of this calendar.

13.11.4 UNITED STATES

High School graduates with high standards from accredited schools who have followed an academic programme designed for university entrance may apply for admission to an extended undergraduate programme of approximately 120 credits. Content of additional credits will be found in the appropriate Faculty section of this calendar.

Applicants are required to have a better than average school record and a high ranking in their graduating class. While no set pattern of courses in high school is required, all applicants are expected to have taken four units of English. Those applying for admission to Science and Engineering must include three or four units in Mathematics and two in the Sciences. At least three units of Mathematics are recommended for admission to Commerce and Administration. The Admissions Office may approve slight deviations from the above pattern.

Students who have successfully passed Advanced Placement examinations appropriate subjects with a grade of '3' or better may be granted some advanced standing.

13.11.5 TRANSFERS FROM POST-SECONDARY INSTITUTIONS

Transfers from post-secondary institutions are referred to §13.4.3.

13.11.6 OTHER COUNTRIES

The following national certificates are recognized as suitable qualifications for making application to the University provided that better than average grades have been attained. In most cases, a specific minimum overall standard on the certificate is required. More specific information with respect to admission requirements and placement levels may be obtained by writing to the Admissions Office.

Country	Certificate
Arab Republic of Egypt	General Secondary School Certificate
Argentina	Bachillerato Universitario
Australia	High School Certificate or University Matriculation Certification
Bahrain	Secondary School Certificate (Tawjihi)
Belgium	Certificat d'Humanités
Czechoslovakia	Vysvedceni o Maturitni Zkousce
France	Baccalauréat (2iême partie)
Germany	Zeugnis der Reife
Greece	Apolyterion
India	Intermediate Certificate or First Year of Three-year B.A., B.Sc. B.Com. (with Class I or Class II or First or Second Division standing)
Iran	Sixth Year Secondary Education Certificate
Israel	Matriculation Certificate
Italy	Diploma di Maturita Classica Diploma di Maturita Scientifica
Kuwait	Secondary School Certificate
Lebanon	Lebanese Baccalauréat (2ième partie)
The Netherlands	Getuigschrift (Gymnasium or Lyceum)
Norway	Examen Artium
Pakistan	Intermediate or Higher Secondary School Certificate (with First or Second Division standing)
Poland	Swiadlectwo Dojrzalosci
Qatar	General Secondary Education Certificate
Vietnam	Vietnamese Baccalauréat (2ième partie)
Yugoslavia	Chegoranctbo or Svedocanstvo

Students accepted into the Extended Credit Programme must normally complete an additional 30 credits.

Content of additional credits will be found in the appropriate Faculty section of this calendar.

13.11.7 ENGLISH LANGUAGE PROFICIENCY

The language of instruction at Concordia University is English. For information regarding this requirement refer to §13.6.3.

13.11.8 TUITION FEES FOR INTERNATIONAL STUDENTS

International students registering at Concordia University for the first time in September 1982 or later will be required to pay $145.00 (Canadian) per credit. The fees payable to the University for the regular session

of two terms running from September to April are approximately $4,800 for a full-time student. This amount includes the tuition fees for 30 credits, student service fees, health insurance, and student association fees. The total amount will vary up or down proportionately, depending on the number of credits being taken. Further information regarding fees will be found in §15 of this calendar.

The following students are among those exempted from paying differential fees (at the time of going to press):

1. Diplomats, consular personnel, duly accredited representatives or civil servants of a foreign country, the United Nations or of one of its organizations, of an intergovernmental organization to which Canada belongs or any member of the staff of the above-listed persons who are working in Canada in an official capacity.
2. The spouse and unmarried children of the above-listed persons.
3. A student who is duly registered at a university and who has come to Quebec as either an exchange student or within the framework of a programme of cooperation agreed to by Quebec and which exempts the participants from paying differential fees.
4. A student who is duly registered at a university and who comes from a country which has signed an agreement with Quebec to this effect. Many Francophone countries currently have this special arrangement with Quebec.
5. A student who is duly registered at a university and whose status as a convention refugee has been recognized, though he may not yet have received the permission to settle here.
6. A student who is duly registered at a university in a programme of studies which is specifically exempted by the Ministry of Education.

At Concordia University, this refers to French language and French and Quebec literature programmes of study.

13.11.9 CRITERIA FOR ADMISSION

Admission to Concordia University is selective and will be considered when all relevant academic certificates have been received, as well as the Summary of Educational Experience by Years form.

All certificates must show the actual grade obtained in each examination. Refer to §13.6 for further information.

13.11.10 REGISTRATION

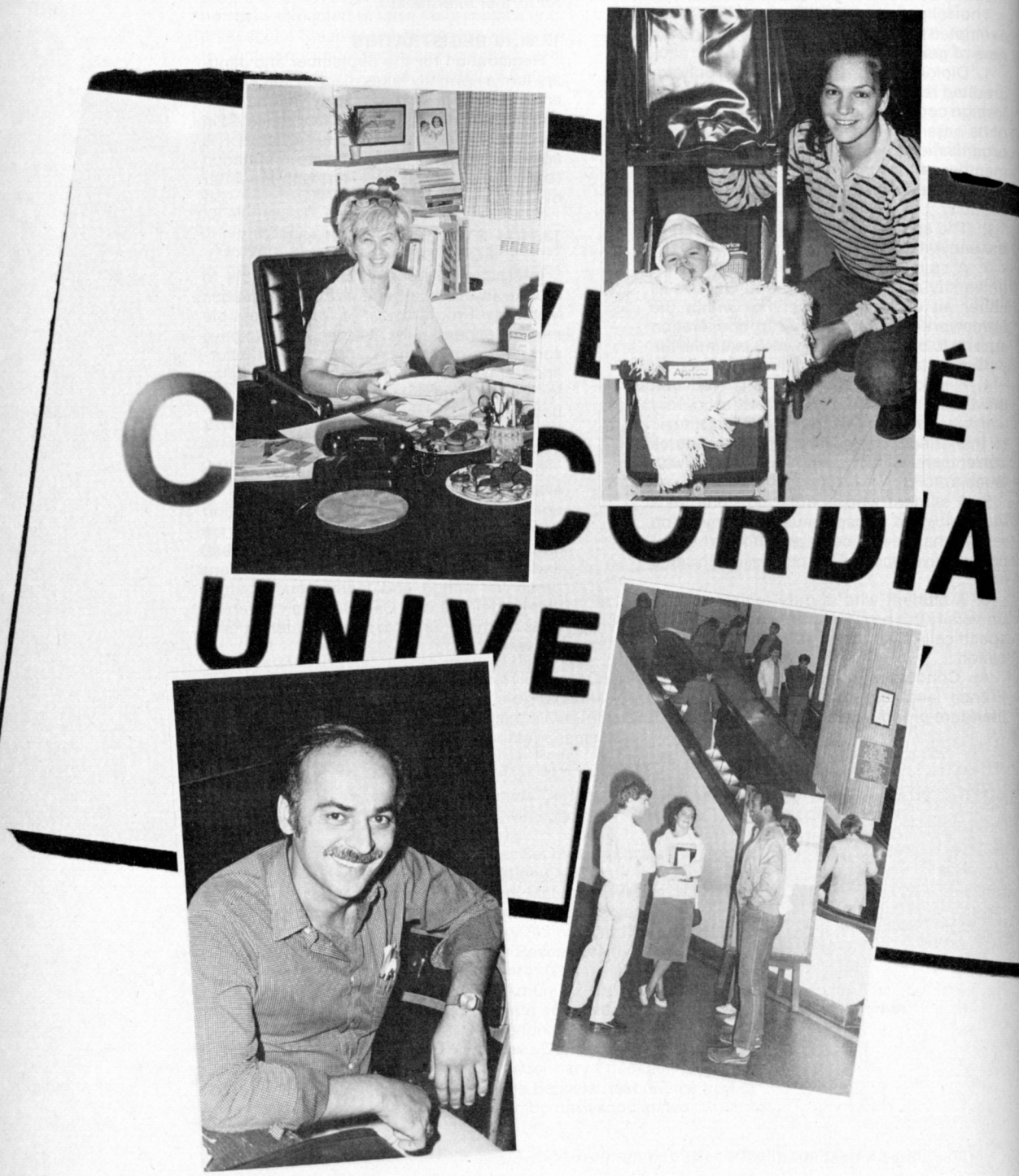
Registration for the September and January terms normally takes place in late August and mid-December respectively. International students must enrol on the dates indicated in their letter of acceptance. Late registration is not normally permitted. Complete information regarding registration is sent with the letter of acceptance.

13.11.11 STUDENT HEALTH AND ACCIDENT INSURANCE

International students are not eligible to receive any medical benefits from the Quebec Medicare Programme. To offset possible medical expenditures, it is necessary to have some form of sickness and accident insurance, and for this reason, a compulsory plan for all entering International students has been adopted by the University.

13.11.12 FINANCES

Government financial assistance is not available to students attending college or university while on a Student Authorization (Visa). Such students are not allowed to be employed on a full-time or part-time basis, and they must present evidence of sufficient funds for tuition and maintenance before being admitted into Canada. The University does not have funds to finance International students.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14 Mature Entry

14.1 GENERAL INFORMATION

14.2 ADMISSION AS A MATURE STUDENT

14.3 PROGRAMME REQUIREMENTS
14.3.1 Arts
14.3.2 Science
14.3.3 Commerce and Administration
14.3.4 Engineering
14.3.5 Computer Science
14.3.6 Fine Arts

14.4 CHOICE OF ELECTIVES

14 Mature Entry

14.1 General Information

Concordia has for many years made it possible for men and women of 21 years of age or over, who have interrupted their studies, to undertake work towards university degrees and certificates, although they lack the normally required pre-university schooling.

Mature entrants are expected to demonstrate the potential to follow undergraduate courses, and are required to complete successfully a minimum of 18 additional credits over and above those required of students who enter with the regular qualifications. Mature entrants are, however, considered and treated in every way as undergraduates.

To advise and assist both prospective and enrolled students in dealing with academic requirements and other problems, the Faculty of Arts and Science maintains a Centre for Mature Students with offices and facilities on both campuses (see §31.510). Other Faculties have their own mechanisms for advising mature students.

14.2 Admission as a Mature Student

The admission of applicants for mature entry is subject to the following conditions:

1. The applicant must have reached the age of 21 by August 1, December 1 or April 1 of a given year, to enter the University in the following September, January or May respectively;
2. Although not meeting the normal academic requirements for admission *(Québec Diplôme d'études collégiales* or the equivalent), the applicant must satisfy the University that he or she has the potential to undertake undergraduate courses;
3. The applicant must have been out of school - that is not engaged in full-time study - for at least 24 months since attaining the age of 18. Applicants who have been out of school for only 12 months are also admissible provided that they have had no unfavourable academic record in the previous 24 months.
4. The applicant must be a Canadian Citizen or Permanent Resident (Landed Immigrant).

Applicants must submit a birth certificate or other acceptable proof of age, together with schooling records and any material which may indicate ability to pursue university studies. (§13.12 provides general information on how to apply for admission.)

14.3 Programme Requirements

Mature entrants must successfully complete at least 18 credits of additional work. In some cases these credits are made up of very specific courses - for example, basic courses in chemistry and physics for those contemplating studies in the pure and applied sciences or basic studio activities for those planning to take programmes in the Visual Arts; in others they are more general. These additional credits are designed with a view to making it possible for mature entrants to make the best use of the studies which they subsequently undertake.

Of these additional credits not more than six may be counted towards the student's eventual programme of concentration (honours, major, etc.).

Requirements are set by each individual Faculty, in terms of the programme to be undertaken.

14.3.1 ARTS

For entry to degree and certificate programmes in Arts (including Education (Teaching of English as a Second Language) and the General Certificate in Arts and Science):

6	credits in English (language or literature)
12	elective credits

Certain departments in the Faculty have specific requirements, which will take up some or all of the elective credits. Students intending to follow programmes of concentration within these departments must include as many as possible of these specific requirements as part of their 18 additional credits:

Geography (Honours and Specialization in Physical Geography (B.A.))
6 credits in Mathematics

Mathematics (B.A.)
Mathematics C203[3], C204[3], C205[3]
(Note: Students not having Math C202[3] or the equivalent must take it in place of the three remaining elective credits.)

Psychology (B.A.)
Psychology C200[6]
Biology C200[6] or C201[3]
3 approved credits in Mathematics (preparation for statistics)

Students must consult with the Director of the Centre for Mature Students before registering.

14.3.2 SCIENCE

For entry to degree programmes in Science:

The minimum of 108 credits required for the B.Sc. degree (i.e. 90 plus the additional 18 credits), must include:

6	credits in Chemistry: C205[3], C206[3]
9	credits in Mathematics: C202[3], C203[3] and C205[3]*
8	credits in Physics: C204[3], C205[3], C224[1], and C225[1]
3-4	credits from: Physics C206[3] and C226[1]; or Biology C201[3]; or Geology C210[3]**

*Students not having Math C201[3], or the equivalent, must take it in place of one of their elective courses.

**Students intending to enter programmes of concentration in the departments of Biological Sciences, Exercise Science or Psychology should take Biology C201[3].

Students must consult with the Director of the Centre for Mature Students before registering, particularly with regard to the sequencing of the 26 or 27 credits in the B.Sc., and to the choice of the 18 additional credits required in the case of a certificate.

14.3.3 COMMERCE AND ADMINISTRATION

For entry to degree programmes in Commerce and Administration:

9	credits in Mathematics: C208[3], C209[3], C211[3]
6	credits in English: C211[6] or an appropriate alternative
3	elective credits

Requirements for certificate programmes are listed with the programme descriptions in the Faculty section of the Calendar (§61).

14.3.4 ENGINEERING

Mature entrants to the Bachelor of Engineering degree are required to complete a minimum of 138.5 to 144 credits, depending on the programme chosen, including:

Mathematics C202[3], C203[3], C204[3] and C205[3]

Requirements for mature entrants to the Certificate in Quality Control:

Mathematics: C202[3], C203[3], C204[3] and C205[3], and work experience.

N.B.: Students lacking basic mathematics may be required to take either or both of C2003 and C201[3].

14.3.5 COMPUTER SCIENCE

Mature entrants to the Bachelor of Computer Science must complete a minimum of 108 credits, including the following:

a) Digital Systems, General Science and Mathematics Options:

Chemistry C205[3]
Physics C204[3], C205[3], C224[1] and C225[1]
Mathematics C202[3], C203[3], C204[3], C205[3]
Computer Science C211[3]

b) General Business Option:

Mathematics C202[3], C203[3], C204[3], C205[3]
Computer Science C211[3]

In all options, some students may require one or more of Mathematics C200[3], C201[3] or English as a Second Language 100[6].

Depending on the option chosen, up to 9 of the credits listed above may be applied towards the elective component of the degree programme.

14.3.6 FINE ARTS

For mature entry to degree and certificate programmes in Fine Arts:

6	credits in English or French
12	elective credits appropriate for entry into the student's ultimate area of concentration and chosen with the approval of the faculty adviser.

14.4 Choice of Electives

Electives will be chosen in consultation with faculty advisers - through the Centre for Mature Students in the case of Arts and Science. They will normally be at the introductory level, depending on the background of the individual student and the programme of concentration to be undertaken.

In the Faculty of Fine Arts courses will be selected from a list available from the Student Programmes Office in that Faculty.

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15 Tuition and Fees

15.1 TUITION AND FEES - GENERAL

15.2 PAYMENT OF TUITION AND FEES

15.3 COURSE CANCELLATIONS, WITHDRAWALS AND ADJUSTMENTS

15 Tuition and Fees

15.1 TUITION AND FEES - GENERAL

The University reserves the right to change the published scale of fees without notice.

Tuition (all undergraduate courses):

	Per credit
Canadian and other students with Permanent Resident (Landed Immigrant) status:	
Undergraduate	$ 15.00
Independent	$ 20.00
*International students	$145.00

*Certain International students may be eligible to pay the same fees as Canadian students. Detailed information may be obtained from the Accounts or Admissions Offices.

Other Fees:

Course change fee - per form	$ 5
Copy of Registration certificate	$ 1
Duplicate of receipt	$ 2
*Preregistration Deposit	$50
Graduation Fee	$30
Late Registration Fee	$25
Removal of "Incomplete"	$15
Special Examination Fee	$15
Supplemental Examination (plus invigilation fee when applicable)	$15
Transcript of academic record	$ 2
Copy of student record (no charge for first copy)	$ 1
Letter of attestation (no charge for first letter)	$ 5
Copies of Form T2202 (no charge for first set)	$ 2
Replacement of identification card	$ 5
Re-evaluation fee (refundable if re-evaluation is in student's favour)	$15
Copy of University Calendar (no charge for first copy)	$ 2

**In the event that Preregistration is not finalized, or if registration is completed and then cancelled this amount will be kept as a minimum charge.*

In addition to the fees set out above, students are required to pay certain Student Service Fees, Student Association Fees and other charges. The current rate of these fees and charges can be obtained from the Student Accounts Offices.

Interest is payable on the outstanding balances of students' accounts at the rate of 1¼% per month (16.08% per annum). This rate may change from time to time in conformity with prevailing interest rates.

15.2 PAYMENT OF TUITION AND FEES

Payment of tuition and other fees may be made in accordance with the following options:

Summer Registration

1. Payment in full at registration.
2. Payment in two instalments:
   a) At registration - one half of tuition fees and all other fees.
   b) Three weeks after registration - balance plus interest from the contract date.

Fall Registration

1. Payment in full at registration.
2. a) At registration—one half of tuition fees and all other fees.
   b) By January 15—balance plus interest calculated from contract date.

Winter Registration

1. Payment in full at registration.
2. a) At registration—one half of tuition fees and all other fees.
   b) By January 15—balance plus interest calculated from contract date.

Registration may be cancelled if a cheque is returned for any reason. In any event, a charge of $5.00 will be made for each returned cheque.

Failure to make payment, or to arrange satisfactory settlement of amounts owing to the University when they become due is sufficient cause to bar the student from classes or examinations, and to withhold diploma, scholastic certificate or transcript of record until the debt is adjusted with the University.

Registration is not considered complete until satisfactory arrangements have been made for the payment of fees.

All contracts are subject to revision for the adjustment of errors or omissions.

15.3 COURSE CANCELLATIONS, WITHDRAWALS AND ADJUSTMENTS

Withdrawal from classes does not entitle a student to refunds of fees or cancellation of contract. Students who withdraw from courses or from the University must comply with the requirements set out in the Timetable of Classes published before each academic session in order to qualify for a rebate of tuition according to the following scale:

Rebate of Tuition

Summer Session

1. Students who withdraw from the University before the end of the Summer course change period; full rebate of tuition less 6%.
2. All others, for courses of:

	1st Term Courses	Two Term Courses	2nd Term Courses
Prior to the end of the applicable course-change period	Full rebate less 6%	Full rebate less 6%	Full rebate less 6%
For two weeks after the end of the first term course-change period	NIL	50%	

Fall/Winter Session

NOTE: For dates of Fall and Winter course-change periods please see §11 (Academic Calendar).

1. Students who withdraw from the University before the end of the Fall (September) course-change period: full rebate of tuition less 6%.

2. All others, for courses of:

	1st Term	Two Terms	2nd Term
Prior to the end of the Fall course-change period	Full rebate	Full rebate	Full rebate
End of Fall course-change period to September 30	3/4	7/8	Full rebate
October 1 to October 31	1/2	3/4	Full rebate
November 1 to November 30		5/8	Full rebate
December 1 to end of January course-change period		1/2	Full rebate
End of January course-change period to January 31		3/8	3/4
February 1 to February 28		1/4	1/2

The above rebates apply to the neteduction of courses within each course category. Different course categories are not combined for purposes of tuition rebate calculations.

Student Services fees and Student Association fees are subject to the same schedule of rebates as those for tuition. Other fees are not refundable.

CONCORDIA

16 Academic Regulations

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16 Academic Regulations

16.1 General Information

The student is responsible for knowing the regulations and complying with them. Specific written permission must be obtained for exceptions to the regulations. Routine approval of a records form (for example the registration contract or course-change form) does not constitute approval of an exception.

All undergraduate, certificate, special, and independent students are subject to the Academic Regulations contained in this Section.

16.1.1 ACADEMIC YEAR

The Academic Year is defined as courses taken during the Summer Session and Regular Session.

Summer Session

The Summer Session consists of a ten-week session operated in the evening and a six-week session operated in the day. The Summer Session is part of the following Regular Session for record purposes.

Regular Session

The day and evening Regular Session of the University is divided into Fall and Winter terms of fifteen weeks each, including an examination period. Dates marking the opening and closing of these terms are to be found in the Academic Calendar §11.

16.1.2 DEFINITION OF CREDIT

In accordance with the recommendations of the Quebec Council of Universities, effective 1974-75, the credit base takes into account the total activity of the student, in terms of lectures, conferences, laboratories, studio or practice periods, examinations, and personal work. One credit represents, for the average student, a minimum of 45 hours spread across the various activities listed above.

16.1.3 STATUS

The status of students is determined by the number of credits for which they are registered at the end of the course-change period.

Session	Full-Time	Part-Time
Registration for Fall-Winter Session	24 Credits or More	Less than 24 Credits
Registration for Fall Term Only	24 Credits or More	Less than 12 Credits
Registration for Winter Term Only	12 Credits or More	Less than 12 Credits
Registration for 10-Week Summer Session	12 Credits	Less than 12 Credits
Registration for 6-Week Summer Session	Full-Time Only	

Special Students

Please see §13.9.

Independent Students

Students not proceeding to a degree, diploma or certificate. Independent students may not register for more than 18 credits in the Regular Session.

NOTE:
Financial Aid Students

Please see §18.3 for special rules on status that have been established by the Government of Quebec for students receiving Quebec loans and/or bursaries.

16.1.4 COURSE LOAD

Regular Session—Full-Time Status

The course load varies according to the faculty in which the student is enrolled.

FACULTY OF ARTS AND SCIENCE, COMMERCE AND ADMINISTRATION, AND FINE ARTS:

A student may register for a maximum of 30 credits in any Regular Session.

FACULTY OF ENGINEERING AND COMPUTER SCIENCE:

See under Engineering Faculty §71 for Engineering programmes. For Computer Science programmes, the maximum is normally 30 credits in any Regular Session.

Regular Session Part-Time Students

Part-time students in all faculties, and Independent students, may register for a maximum of 18 credits, equally divided between the Fall and Winter Terms.

Summer Session

Students may not take more than a total of 12 credits of work during the Summer Session because of the concentrated nature of the schedule. The Summer Session includes all courses scheduled from the month of May to the month of August inclusive.

16.1.5 RESIDENCE REQUIREMENTS

1. Out of the total number of credits required for a bachelor's degree, a minimum of 45 credits must be taken at Concordia University for all bachelor's degrees except that of the Bachelor of Engineering, where the minimum is 60 credits. Unless otherwise authorized by the Faculty to which the student has been admitted, these will be the *last* 45 credits (or the *last* 60 in the case of the Bachelor of Engineering).

The proportion of degree credits which must be taken at Concordia University in honours, specializations, majors, minors or

other elements of concentration will be determined by individual faculties but should be not less than 50%.

2. Students who already possess a bachelor's degree may undertake a second bachelor's degree, under the conditions laid down below. Students are, however, advised that before registering for a second bachelor's degree they should consider whether their purpose might not be better served by taking a diploma or master's programme. To obtain a second bachelor's degree at Concordia University students must:

a) Register in an established programme with a higher degree of concentration than a Minor.

b) Complete sixty credits in courses other than those credited towards the first degree, at least thirty-six of which must be taken in the new field of specialization.

3. Any student seeking to transfer to Concordia University after having failed at another university, or after having compiled an unsatisfactory record at another university, must fulfill the residence requirements stipulated for him upon admission. In general, a minimum of sixty credits will be required for any degree.

16.1.6 REGISTRATION FOR COURSES

A central computerized registration is held in August for both the Fall and Winter terms, and in May for all Summer terms. At that time, students select their courses for the upcoming session, receive a contract and course cards, make tuition payment, and receive an I.D. card.

All information necessary for registration will be found in the applicable class schedule.

A preregistration system is also available to full-time students for the Regular Session.

Refer to §13.1 regarding eligibility.

For further information, please contact the Registrar's Services Department on either campus.

16.1.7 WITHDRAWAL

Students who are withdrawing from a course or courses, or entirely from the University, must notify the Registrar's Office, either on the specific form designated for the purpose and available from the Registrar's Services Department, or by letter.

The responsibility for taking all steps necessary for withdrawal is entirely that of the student. Ceasing to attend classes, or informing an instructor of intent to withdraw does not constitute withdrawal.

For each session there is a final date beyond which a student may not withdraw from a course. In addition, the fee penalty varies by the date on which a course is dropped. Students are referred to the Academic Calendar and to the statement of fees regarding refunds.

16.1.8 CROSS-REGISTRATION

Concordia University, McGill University, Université de Montréal and Université du Québec à Montréal have agreed to permit transfer of academic credit and course fees between Montreal universities up to a maximum of 6 credits in any one year. (Similar arrangements may be made with other Quebec universities.) In exceptional cases, a student may be authorized to take up to 12 credits at another university. Part-time students may be authorized to register for credits on the condition that the number of credits for which they register does not exceed 30% of the number of credits taken at the home university in any academic year. The agreement is intended to include only those courses not given at the home university which fit a student's programme requirements. Authorization for an undergraduate student to cross-register must be given by the student's academic adviser, the Assistant Dean for Student Affairs, and the Registrar. The arrangement allows for payment to be made by Concordia to the "host" university if the student has paid tuition fees in full to Concordia University.

This agreement in no way interferes with the host university's right to accept or refuse, as it sees fit, registration of a student from another university in any of the courses or programmes that it offers. The student is expected to follow the registration procedures of the host university, and when attending the host university, is subject to its regulations.

Credits earned within this policy are counted towards the University residence requirements.

16.1.9 GRADUATION

Degree and certificate candidates who expect to complete requirements in a particular year must contact the Registrar's Office to make application for that degree or certificate. Graduation Application Forms provided by the Registrar's Services Department must be submitted before July 15th, 1983 for Fall graduation and January 15th, 1984 for Spring graduation.

16.1.10 HIGH ACADEMIC ACHIEVEMENT

Distinction: A degree With Distinction or With Great Distinction may be achieved by obtaining the following levels:

With Distinction 'A'-

With Great Distinction 'A+'

The average for students in the Faculty of Arts & Science, the Faculty of Commerce & Administration, and the Faculty of Fine Arts will be calculated over the last ninety credits. Students in the Faculty of Engineering (including Computer Science) will be calculated over the entire programme. Additional credits in extended programmes are not included in any calculation. In the case of transfer students, all courses taken at Concordia will be included. However, a transfer student must have taken a minimum of sixty credits at Concordia in order to be eligible for distinguished mention.

16.1.11 TRANSCRIPTS

A student may obtain an unofficial copy of his record from the Registrar's Services Department during normal operating hours. Official Transcripts, however, are not issued to students but are sent directly to another institution or potential employer at the student's written request, provided there is no outstanding account owing to the University.

16.1.12 STUDENT REQUEST COMMITTEE OF FACULTY COUNCILS

Each Faculty has a Student Request Committee made up as follows:

- 3 faculty members appointed by the Faculty Council (which may also appoint alternates).
- 1 representative from the Registrar's Office or the Admissions Office.
- 1 student appointed by the Faculty Council.
- the Associate/Assistant Dean who acts

as convener.

Student Request Committees are authorized to handle applications from full-time or part-time students (except independent students) on matters relating to academic regulations. Requests on procedural matters will be redirected to the appropriate administrative office.

Each Student Request Committee will establish guidelines for the treatment of applications and delegate to the Associate/Assistant Dean the responsibility for handling applications within these guidelines.

Students and members of the Faculty may request that the Student Request Committee review any decision made by the Associate/Assistant Dean in his capacity as delegate of the Committee. During such reviews, the Associate/Assistant Dean will not sit as a member of the Committee. Decisions of the Committee are final.

Independent students must submit *all* requests relating to University Regulations to the Registrar.

16.2 Programmes and Regulations

16.2.1 CURRICULUM OBLIGATIONS

Where a student acquires credit toward a degree, diploma or certificate in a discontinuous manner and over a protracted period of time subsequent to his admission, the University reserves the right, at any time, to require such a student to take further credits in order to obtain that degree, diploma or certificate.

16.2.2 CURRICULUM REGULATIONS

1. The regulations relating to the degree requirements are located in the Faculty sections:

Faculty of Arts and Science: §31
Faculty of Commerce and Administration: §61
Faculty of Engineering: §71
Faculty of Fine Arts: §81

2. All undergraduate degree students, other than those who have satisfied the language testing requirements as a condition of admission to the University, must take and pass the University Writing Test in English or French. Passing the test is a graduation requirement.

This requirement comes into force for students entering degree programmes the first time in or after September 1983.

(Full details were not available at the time of going to press. They will be published in due course and will in any event be included with the letter of acceptance.)

16.2.3 CONCENTRATION REQUIREMENT

Since the CEGEP programme is designed to give all students the opportunity to explore different fields and thus acquire a broad general basis for future study, the undergraduate programme requires some degree of concentration, according to the interests and capability of the student. There are several forms of concentration, ranging through Honours, which require success in a programme of high concentration accompanied by a prescribed level of performance; the Specialization and the Major requiring varying degrees of concentration without a prescribed performance requirement; and the Double Minor, involving a lesser degree of concentration in two disciplines or fields, and without a prescribed performance requirement.

In order to graduate a student must have completed one of the following types of programme concentrations: Honours, Specialization, or Major. Any one of these may be combined with a Minor. In the Faculty of Fine Arts the degree of BFA may be awarded for a Double Minor.

Prior to registration, students will be required to select one of the types of programme of concentration outlined above. In the case of Honours, students will register upon entry in an Honours *programme,* but their acceptance as Honours *students* will depend on their performance during their first year. Students failing to meet requirements for Honours standing will proceed in either a Specialization or a Major programme.

16.2.4 HONOURS PROGRAMMES

These regulations represent a minimum academic standard for Honours programmes. All programmes and additional Faculty regulations, including those with higher standards, are listed in the Faculty sections under "Honours Programmes".

The University has approved programmes leading to an Honours degree in certain selected fields. The Honours programme consists of 60 or more credits in a discipline or field, with superior performance being required to enter and remain in the programme. In order to qualify for an Honours degree a student must comply with the regulations set forth below:

1. An Honours student must meet the general degree requirements as well as the specific requirements for an Honours degree.
2. An Honours student must maintain an average of 'B', or 75%, in all Honours courses; the minimum acceptable grade in any single Honours course is 'C', or 65%.
3. An Honours student must have a minimum average of 'B'-, or 71%, over Honours courses taken in each academic year. For part-time students this will be calculated in eighteen-credit blocks.
4. In the non-Honours courses of the degree programme, an Honours student must have an average of no less than 'C', or 65%.
5. Students who are required to withdraw from the Honours programme will proceed in the Major or Specialization programme. Reinstatement in the Honours programme is possible only by appeal to The Faculty Honours Committee.

These regulations apply to those students entering Honours Programmes on or after June 1, 1977. Students who started in an Honours programme prior to that date may continue under the old regulations published in the 1978/79 Undergraduate Calendar.

16.2.5 SPECIALIZATION PROGRAMMES

The Specialization, in keeping with the structures recommended by the Quebec Council of Universities, is an approved sequence of courses including 60 or more credits without a prescribed performance requirement.

16.2.6 MAJOR PROGRAMMES

The Major, again in keeping with the structures recommended by the Quebec Council of Universities, is an approved sequence of courses including 36 or more credits, except in the Faculty of Commerce and Administration where the Major consists of at least 24 credits in the chosen discipline in addition to the required 51-credit core. As in the case of the Specialization, the Major may include certain approved courses in other closely related fields.

16.2.7 MINOR PROGRAMMES

A programme, again in keeping with the structures recommended by the Quebec Council of Universities, is an approved sequence of 24 or more credits, except in the Faculty of Commerce and Administration where the Minor consists of at least 12 credits in the chosen discipline in addition to the required 51-credit core.

16.2.8 DOUBLE MINOR PROGRAMMES

In the Faculty of Fine Arts Double Minor programmes are made up of two approved sequences of 24 or more credits in two specific disciplines or fields.

16.2.9 COMBINATIONS

An Honours, Specialization, or a Major programme may be combined with a Minor programme.

16.2.10 CERTIFICATE PROGRAMMES

An Undergraduate Certificate programme is a coherent programme of 30 credits made up of regular undergraduate courses that are, in turn, normally applicable to the appropriate bachelor's degree.

16.3 Evaluation, Grading, Examinations and Advancement

16.3.1 EVALUATION

A university degree certifies that its holder has attained a measurable level of achievement, as established by a recognized system of evaluation. It is consequently required that the performance of each student in each course be evaluated by the instructor (or instructors) responsible for the course.

The final grade that assesses the performance of each student in each course will take into account the total measurable performance of the student in that course. Specifically, the grade will be given on the basis of one or more of the following:

1. Assigned work, term papers, projects, etc.
2. Class participation which, in the case of certain disciplines, may justify an attendance requirement.
3. Progress tests.
4. Laboratory tests and/or laboratory work.
5. Mid-term and/or final examinations.
6. A level of written expression may be given consideration in determining the final grade.

The weighting of the various evaluative elements is the responsibility of the instructor. At the beginning of the course the instructor will inform the class of the evaluation scheme to be used.

While the language of instruction in Concordia University is normally English, students have the right to write their assignments and examinations in French. It must be understood, however, that in a case where the instructor cannot read French, the assignments or examinations will have to be read by another person, with possible resulting disadvantages and delays for the student. Students are advised to enquire of the instructor at the beginning of their course whether he or she will personally read assignments and/or examinations written in French. Notwithstanding the above, language and literature departments may require assignments and examinations to be written in the language being studied.

16.3.2 GRADING SYSTEM

In each course, the instructor submits a grade for every student registered.

Grades are submitted in an alphabetical form shown in the table below:

A+	Outstanding
A	
A-	
B+	Very Good
B	
B-	
C+	Satisfactory
C	
C-	
D+	Marginal Pass
D	
D-	
F	Failure
R	Failure - Repeat

The above grades are converted to a numerical equivalent and used for the evaluation of achievement, honours standing, and prizes only. Numerical equivalent tables are available from the Registrar's Services Department.

F—Failing Grade

The grade submitted will be 'F'.

For courses in which supplemental examinations are not precluded, a student to whom an 'F' grade has been assigned and who is in good academic standing, may, subject to the regulations of the Faculty, write a supplemental examination.

For courses in which supplemental examinations are precluded, this grade will be recorded as FNS to draw attention to the absence of supplemental privilege for the course in question.

R—Repeat Failing Grade

The grade submitted will be 'R'.

Students graded 'R' in a course may not write supplemental examinations, and must repeat the course to receive credit, providing such repetitions are permitted within the failure regulations and/or the regulations concerning the repetition of courses.

16.3.3 GRADING—PROCEDURES AND SPECIAL CASES

INC, DNW, and MED

If the work for a course has not been

completed, the following notations will be made after the grade given for that course:

INC (Incomplete) denotes that, though the final examination, if any, was written, work essential for evaluation of a student's performance, such as a term paper or a laboratory, was not completed.

DNW (Did Not Write) denotes that, though the instructor marked the term work, the final examination was not written.

In some circumstances, both INC and DNW may be used simultaneously.

MED (Medical) denotes that an examination or assignment was missed for medical reasons. This notation is entered on the record by the Examinations Office. An acceptable medical certificate (certified by a physician on his letterhead) must be submitted within ten days of the missed examination to the Examination Office.

Replacement of 'F', DNW, INC and MED Entries

The method of recording changes from 'F', DNW, INC and MED entries will be as follows:

1. In cases where a supplemental examination or a late completion has been allowed on medical or compassionate grounds, the new grade will replace the original entry.
2. In all other instances, the original entry will be retained on the transcript. A second entry of the course code will be made along with the final grade.
3. Students failing a supplemental examination will receive the grade 'R'.
4. Students eligible to write a supplemental examination on medical grounds, but who do not wish to avail themselves of this right, will have their records altered by the Registrar's Office from the original entry of 'F-DNW' or 'F-INC' submitted by the instructor to 'MED-DNW' or 'MED-INC'.

DNE, DISC, and NR

DNE (Did Not Enter) applies to courses that are properly dropped *before* the end of the course-change period. The course will remain on the student's academic record for one year with the notation DNE. It will not appear on official transcripts of the record.

DISC (Discontinued) applies to courses that are properly dropped *after* the end of the course-change period. The course will remain permanently on the student's academic record with the notation DISC. It will appear on official transcripts of the record.

NR (Not Reported) - In the event that a student appears to have withdrawn, unofficially, from a course, and no material is available for evaluation, the instructor will clearly not be able to submit a grade. The Registrar will indicate this situation with the notation NR (Not Reported). This notation carries no numerical weighting, but denotes a failure for purposes of counting the number of failed courses in assessing academic standing.

16.3.4 ACADEMIC RE-EVALUATION

I. General

1. All students have the right to apply for the re-evaluation of any grade they receive. Such an application may be based on dissatisfaction with either the grade received or the method of grading. Grades may be lowered, maintained or raised as a result of the re-evaluation.
2. Students have the right to see their examination papers and any marked material that has contributed to the grading of a course. Students are responsible for the preservation and production in the case of a re-evaluation of any marked material that has been returned to them by an instructor. Departments (Divisions in Fine Arts) are responsible for the preservation and production of written materials in their possession for a period of six months following the official release of grades.

II. Normal Procedure

1. Students who seek re-evaluation of their work will, in the first instance, endeavour to meet with the instructor and explain their position to him. If they remain dissatisfied, or are unable to meet with the instructor, they may, on receipt of the final grade for the course, apply formally for re-evaluation.
2. A formal application for re-evaluation will be made to the Registrar. Each application must be on the appropriate form, and be in writing and signed. It must set out the reasons for the dissatisfaction, and also contain a statement that the student has met with the instructor, or has tried to meet with the instructor and failed. A fee of $15 per application will be charged. This amount will be reimbursed if the application results in the grade being raised.
3. An application must be submitted by:
   Fall-term courses : February 1
   Winter-term courses: June 15
   Summer-session courses: October 1

   The registrar may extend these deadlines in particular cases, but only if the person applying for re-evaluation could not reasonably have done so within the above deadlines.
4. The Registrar will forward the application immediately to the chairman of the appropriate department, with a copy to the instructor and the Dean.
5. According to the nature of the application, the department chairman will appoint a person or persons to carry out a re-evaluation or investigation, and will communicate the name(s) to the student, the instructor, the appropriate Dean and the Registrar. Normally a member of the Faculty in whose course the student is currently enrolled is not eligible to conduct a re-evaluation or investigation. Where the department chairman was the instructor performing the evaluation the appropriate dean will make the appointments.
6. The re-evaluation or investigation will normally be completed within 21 days of the receipt of the application by the chairman.
7. The chairman will inform the student, the instructor, the Dean and the Registrar of the decision of the person(s) charged with the re-evaluation or investigation. This decision is final.

III. Priority Procedure

1. The priority appeal procedure is provided to accelerate the process for specific courses designated by the Faculties. A list of these courses is posted in the Registrar's Service Department prior to the beginning of the course-change period each term.
2. Students registered in courses that have been designated by the faculties may file a priority appeal with the Registrar as soon as the grade is known, but in no case later than 3 days before the end of the course-change period for the next term.
3. Students who opt for this priority procedure will still, in the first instance, endeavour to meet with the instructor. If the issue is resolved between the student and the instructor after an appeal is launched, the appeal

must be cancelled by the student. If the appeal is not cancelled the fee of $15 will not be reimbursed.

4. The Dean will appoint a person who, in collaboration with the Registrar, will ensure accelerated processing of priority appeals in so far as possible, in accordance with the procedures set out in II, 5.

5. The re-evaluation or investigation of priority applications must be completed prior to the last day of the course-change period for the next term.

6. The Dean's appointee will inform the student, the instructor, the Dean and the Registrar of the decision of the person(s) charged with the re-evaluation or investigation. This decision is final.

IV. Appeals

1. Both the student and the instructor have a right of appeal on procedural grounds only against a re-evaluation decision.

2. An appeal will be made to the Dean and will normally be lodged within 14 days of the announcement of the decision by the chairman. Each appeal must be on the appropriate form, and be in writing and signed. It must set out the reasons for the appeal.

3. It is the responsibility of the Dean to inform the student or the instructor, as may be required, the chairman and the Registrar that an appeal has been received.

4. The Dean will refer the appeal to the Faculty Appeal Committee, a standing committee of Faculty Council.

5. Faculty Appeal Committee procedures will be determined by the appropriate Faculty Council.

6. The Faculty Appeal Committee will be composed of an equal number of faculty and students, who will choose a chairman from outside their initial membership.

7. The Faculty Appeal Committee will deal with the appeal as it deems necessary in order to decide whether the re-evaluation procedure was correctly followed.

8. The decision will normally be rendered within twenty-one days of the lodging of an appeal. If the Faculty Appeal Committee finds that the re-evaluation procedure was not correctly followed it will instruct the department chairman to arrange for a fresh re-evaluation.

9. There is no further appeal once the Faculty Appeal Committee has rendered its decision.

10. It is the responsibility of the Committee to inform the student, the instructor, the chairman, the Dean, and the Registrar of the decision.

16.3.5 FAILURE REGULATIONS*

These failure regulations are to be considered as defining the minimum standard acceptable to the University. Subject to the approval of Senate, higher standards may be established by any Faculty. For purposes of these regulations, "failure" includes the grades F, FNS, R, and NR.

I. 90 Credit Programme

1. Any student who fails courses equivalent to more than twelve credits before obtaining thirty credits on record, or who fails courses equivalent to more than twenty-four credits before obtaining sixty credits on record is a failed student.

Such a student will have entered on record: "Failed. Must obtain permission to re-register from the Faculty Dean."

2. Any student who fails courses equivalent to more than thirty credits is a failed student. Such a failed student may not apply for readmission.

Such a student will have entered on record: "Failed. May not re-register."

II. Mature Entry and Extended Credit Programme

1. Any student who fails courses equivalent to more than twelve credits before obtaining thirty credits on record, or who fails courses equivalent to more than twenty-four credits before obtaining sixty credits on record, or who fails courses equivalent to more than thirty-six credits before obtaining ninety credits on record is a failed student.

Such a student will have entered on record: "Failed. Must obtain permission to re-register from the Faculty Dean."

2. Any student in the Mature Entry programme who fails courses equivalent to more than thirty-six credits is a failed student. Such a failed student may not apply for re-admission.

Such a student will have entered on record: "Failed. May not re-register."

3. Any student in the Extended Credit programme who fails courses equivalent to more than forty-two credits is a failed student. Such a failed student may not apply for re-admission.

Such a student will have entered on record: "Failed. May not re-register."

III. Independent Students

1. An Independent student is subject to the same regulations as a student in the 90-Credit Programme.

2. An Independent student who is classified as failed must obtain permission to re-register from the Registrar.

IV. Regulations for Failed Students

1. Failed students are neither eligible to write supplemental examinations nor entitled to late completion of courses.

2. Failed students who are given permission to re-register are placed on Academic Probation.

3. Students placed on Academic Probation must pass the next thirty credits on the first attempt and satisfy any other conditions specified for their re-admission. Students failing to meet these requirements may not apply for re-admission.

These Failure Regulations are liable to modification in the case of students transferring either between faculties or from another university.

**Students in the Bachelor of Engineering and Bachelor of Computer Science Programmes will be subject to the failure regulation published in §71.10.5 of the Faculty of Engineering and Computer Science Regulations.*

16.3.6 SUPPLEMENTAL EXAMINATIONS —REGULATIONS

University Regulations

1. Each Faculty determines the availability of supplemental examinations for the courses offered by that Faculty. Such availability is governed by the rules of the Faculty in which the course is offered, not those of the Faculty in which a student is registered.

2. A student is not permitted to write two supplemental examinations for the same course, whether or not the course is being repeated. However, a supplemental may be

written for a course being repeated if the student has not written one previously for that course.

3. A failed student, or a student on academic probation, or a student with conditional standing (Faculty of Engineering), is not permitted to write supplemental examinations.

4. Should a student fail a course for which there is no supplemental examination, the absence of a supplemental examination will be recorded together with the failing grade. (§16.3.2).

5. Supplemental examinations for courSes taken in the Regular session will be written in the following July. Supplemental examinations for courses taken in the Summer Session will be written in the following October.

6. Medical reasons (certified by a physician on his letterhead) can constitute a valid excuse for exemption from most of the regulations governing supplemental examinations. Such medical reasons must be submitted to the Examinations Office within ten days of a missed examination. The entry on the record for the original examination in such cases is MED/DNW.

7.(a) A student who has missed a regular examination for medical reasons may write the supplemental examination as a final examination. A student who passes will receive a normal grade. A student who fails may apply to the Examinations Office to write a second supplemental examination.

b) A student who has missed a supplemental examination for medical reasons is graded MED/DNW., and may apply to the Examinations Office to write another supplemental on another date.

8. A student who is taken ill during an examination and so is unable to finish it should obtain a written statement to this effect from the nurse on duty at the Health Centre, and deliver that statement within ten days to the Examinations Office.

9. Applications to write a supplemental examination for a course in the Summer Session must be submitted by October 1, and for a course in the Regular Session by June 15. Graduating students have until February 1 to submit an application to write a supplemental examination for a course in the Fall Term. The appropriate fee must accompany all applications.

10. Students who wish to write a supplemental examination at an external centre will first discuss their situation with the Director of Examinations. The external application form must be completed as well as the regular application form.

16.3.7 REGULATIONS CONCERNING COURSES NOTATED AS INCOMPLETE

1. A failed student, or a student with conditional standing (Faculty of Engineering and Compuér Science), is ineligible to complete a course with an incomplete notation.

2. A student is ineligible to complete a course with an incomplete notation in a course graded 'R'.

3. An application for an incomplete must be submitted by:

Fall-term courses: February 1
Winter-term courses: June 15
Summer-session courses: October 1

4. The limiting dates for the submission of late work are:

a) For Fall-term courses not later than April 1.

b) For all other courses in the Regular Session not later than August 1.

c) For all courses in the Summer Session not later than November 1.

5. For 6-credit courses taken during the Regular Session or 3-credit courses taken during the Winter Term, students are advised that work completed for courses with an incomplete notation and reported to the Registrar's Office before the submission of the list of failed students to the Deans will not count as a failure when assessing academic standing. The date for the receipt of these grade changes by the Registrar's Office is May 19, 1982.

NOTE: The University is not responsible for providing facilities to enable students to clear courses with an incomplete notation by this date.

16.3.8 REPETITION OF COURSES

1. In general a student may repeat a failed course only once. However, should a course required for a programme be failed a second time, a student must appeal to the appropriate student request committee for permission to take the course a third time, or for permission to replace the required course with another. Unless such permission is granted, the student will not be allowed to continue in the University toward that programme and/or degree.

2. A student who has received credits for a completed course may not write the supplemental examination.

3. A student who has received credit for a completed course may repeat a course for personal reasons, for instance, an external requirement. The student's record will reflect the new grade, however, there will be no credit value associated with the grade. The original entry will be used for averaging purposes, except as provided by the special regulations for the Faculty of Engineering.

4. A student who fails a course that is specifically required for a degree must take the course during the session for which he next registers. If a required course is taken for the first time during the Summer Session and is failed, a student may postpone his registration for repetition of the course until the session following the regular scheduled supplementary examination period for Summer Session courses.

16.3.9 REGULATIONS REGARDING CHEATING (UNDERGRADUATE)

I. General

1. Where the word 'examination' is used it shall be taken to cover any examination, test or similar evaluative exercise carried out under invigilation. The invigilator may be the course instructor or another person.

2. Every examination paper shall expressly list the materials that a student is permitted to have and use during the examination, such as textbooks with notations, textbooks without notations, calculators, etc.

3. Every examination paper shall expressly indicate any special conditions relating to the examination, such as permission for students to work together.

4. A student in the examination area will not speak to or otherwise communicate with another person other than an invigilator unless such communication has been expressly authorized by those conducting the examination.

5. It is the duty of an invigilator to report to the Registrar in writing any apparent instance of cheating as defined in Section II, 1 below.

6. Wherever there is doubt or ambiguity regarding any provision in these regulations, or the procedure to be followed, that interpretation or procedure shall be adopted which appears most equitable, consistent with the general purposes and philosophy of these regulations.

7. Wherever reference is made in these regulations to an official of the University and that official is unable to exercise his or her functions, the person replacing the official shall carry out those functions.

II. Procedures

1. Cheating means any dishonest or deceptive practice relating to an examination. It may include:

a) making use of any book, paper, script, writing, drawing or other material not expressly authorized by those conducting the examination;

b) possessing any book, paper, script, writing, drawing or other material not expressly authorized by those conducting the examination;

c) communicating during an examination with any person other than those invigilating the examination;

d) having another person write the examination;

e) attempting to do any of the above.

2. A student who is suspected of cheating during an examination shall be so informed by the invigilator and be required to leave the examination area immediately. The invigilator shall take charge of the student's examination book as well as of any other evidence relating to the suspected cheating.

3. The invigilator shall then offer the student the option of:

a) withdrawing from the examination, with the understanding that, if a charge of cheating is not laid or upheld, the student will be enabled to take another examination for the same course; or

b) continuing the examination under controlled conditions in another location.

c) The student shall be required to write out and sign a statement of the option taken. If the student chooses to continue the examination, the invigilator will provide a fresh examination book for the purpose and will allow additional time for the examination to compensate for any time lost during this process.

4. Any evidence shall be delivered to the Registrar as soon as reasonably possible.

5. If, after the completion of an examination, a person grading that examination finds grounds to suspect a student of having cheated, that person shall deliver to the Registrar a written statement setting out the grounds for the suspicion, together with the student's examination book and any other relevant material.

6. If the Registrar deems it appropriate to lay a charge of cheating, the Registrar shall prepare a precise, written charge, dated and signed, and send it within seven days to the Dean of the Faculty for the programme in which the student is registered, as well as to the instructor of the particular course. If the student is not registered in a programme, the charge shall be sent to the Dean of the Faculty or Division providing the course.

7. There will be established in each Faculty or Division a panel from which will be drawn the committee that will hear any charge of cheating which is denied by the student charged. This panel will consist of six members of the full-time faculty named by the Faculty Council, and six undergraduate students registered in the Faculty named by the appropriate student association or associations.

8. On receipt of a charge from the Registrar, the Dean of the Faculty or Division shall immediately send a copy of the charge to the student and inquire in writing whether the student admits or denies the charge. The letter from the Dean shall be sent to the student by registered mail at the last address given to the University.

9. The student shall admit or deny the charge in writing within twenty-one days of the mailing of the Dean's letter. The Dean may extend this delay only if the student could not reasonably have acted within the twenty-one days.

10. When the student admits the charge, the Dean shall apply one of the sanctions set out in Section III below.

11. When the student does not admit or does not respond to the charge, the Dean shall arrange for a hearing committee.

12. The hearing committee shall consist of two faculty members and two students named by the Dean from the panel established under II, 7 above, and in addition a fifth member, named by the Dean, who shall serve as chairman.

13. The student and the Registrar, or a delegate of the Registrar, have the right to be present at the hearing of the charge, and to address the committee, but they shall not be present at the deliberations of the committee.

14. The committee shall make a written and reasoned report to the Dean giving its decision on whether or not the student acted as charged. It may recommend a sanction.

15. If the committee does not uphold the charge, the Dean shall so inform the student, the Registrar and the instructor of the course.

16. If the committee upholds the charge, the Dean shall apply one of the sanctions set out in Section III below. The Dean shall send a statement of his or her decision together with a copy of the report of the committee to the student, the Registrar and the instructor of the course.

17. The student and the Registrar shall have a right of appeal to the Senate Appeals Committee on Cheating and Plagiarism against either the decision and/or the sanction. Notice of such appeal specifying the grounds must be made in writing to the Secretary of Senate; in the case of the student within twenty-one days of the decision, and in the case of the Registrar within seven days of the decision. These delays may be extended in exceptional circumstances by the Senate Appeals Committee on Cheating and Plagiarism.

18. The decision of the Senate Appeals Committee on Cheating and Plagiarism will be final.

19. In the event that a charge against a student is not laid or is not upheld, and the student has either not continued with the examination or wishes to take a second examination, the Dean and the Registrar shall arrange for such an examination in consultation with the student.

III. Sanctions

1. Where a student admits or is found to have cheated, the sanction shall be one of the

following:

a) the imposition of a failing grade for the course related to the examination in which the cheating occurred; ineligibility to write a supplemental examination for the course; and the obligation to take and pass the equivalent of one six-credit course (i.e. one full-course or two half courses) in addition to the total number of credits required for the programme. The course to be taken may be specified;

b) the sanction as provided in sub-section (a) above, and with the obligation to take and pass the equivalent of a further one, two or three six-credit courses in addition to the total number of credits required for the programme. The courses to be taken may be specified;

c) the sanction provided in sub-section (a) or (b) and suspension from the University for the remainder of the year;

d) the sanction provided in sub-section (c) and suspension for an additional period of not more than one year;

e) the imposition of a failing grade for the course related to the examination in which the cheating occurred and expulsion from the University;

2. A student who has another person write his/her examination will normally receive the maximum penalty.

3. Sitting an examination for another person is an offence chargeable under the Code of Conduct (Non-Academic).

4. A year shall begin on September 1 and end on August 31 if the charge relates to an act occurring in the Regular Session, and from May 1 to April 31 if the charge relates to an act occurring in the Summer Session.

5. Should the student not be registered in a programme, the sanction shall be either the relevant part of (a) or that provided in (c), (d) or (e).

6. If a suspended student fails the year in which he or she was suspended and wishes to be readmitted, that student must apply for readmission.

7. Should a student either admit or be found to have cheated for the second time the student shall be expelled from the University.

8. A sanction of suspension or expulsion is subject to confirmation by the Rector.

16.3.10 REGULATIONS REGARDING PLAGIARISM (UNDERGRADUATE)

I. General

1. Plagiarism, for the purposes of these regulations, means the presentation by a student of the work of another person as his or her own. It includes copying, translating and paraphrasing without acknowledgement of the source.

2. Wherever there is doubt or ambiguity regarding any provision in these regulations, or the procedure to be followed, that interpretation or procedure shall be adopted which appears most equitable, consistent with the general purposes and philosophy of these regulations.

3. Wherever reference is made in these regulations to an official of the University and that official is unable to exercise his or her functions, the person replacing the official shall carry out those functions.

II. Procedures

1. If an instructor has reason to believe that a student has committed plagiarism, the instructor shall immediately inform the student and discuss the circumstances.

2. After such discussion, the instructor shall:

a) decide that no further action is necessary; or

b) require that the work be resubmitted with appropriate changes; or

c) give the student a failing grade in the work submitted; or

d) give the student a failing grade in the course for which the work was done; or

e) refer the matter to the chairman of the department.

3. If the instructor's decision is that set out in 2(a) or (b), the matter shall be considered closed. If the decision is that set out in 2(c) or (d), the student may appeal it to the chairman of the department.

4. Should a student appeal a decision as set out in 2(c) or (d), the chairman of the department shall:

a) uphold the award of a failing grade; or

b) cancel the failing grade and require that the work be graded as originally submitted;

c) cancel the failing grade, and require that the work be resubmitted to the instructor with appropriate changes.

The chairman's decision shall be final.

5. If the matter is referred to the chairman of the department, as set out in 2(e), and an appropriate departmental committee exists or the departmental practice is to set up an ad hoc committee, the chairman shall be referred to that committee.

6. If an appropriate committee exists, the committee shall review all the circumstances with the instructor and the student, and shall:

a) decide that no action is necessary; or

b) require that the work be resubmitted with appropriate changes; or

c) decide that a formal charge shall be made against the student.

If the committee's decision is that set out in 6(a) or (b), the matter shall be considered closed.

7. If the matter is referred to the chairman of the department as set out in 2(e) and no appropriate departmental committee exists, the chairman shall review all the circumstances with the instructor and the student, and shall:

a) decide that no action is necessary; or

b) require that the work be resubmitted with appropriate changes; or

c) decide that a formal charge shall be made against the student.

If the chairman's decision is that set out in 7(a) or (b), the matter shall be considered closed.

8. In the event that the instructor is the chairman of the department, the Dean shall appoint another member of the department to act in his or her stead.

9. If either the appropriate committee or the chairman of the department decides that a formal charge shall be made against the student, the chairman shall send that charge to the Dean of the Faculty for the programme in which the student is registered. If the student is not registered in a programme the charge shall be sent to the Dean of the Faculty or Division providing the course.

10. The formal charge to the Dean shall be made in writing, and be dated and signed by the chairman of the department.

11. The Dean shall send immediately a copy of the charge to the student, inform the student of the procedures and sanctions

relating to a formal charge, and inquire in writing whether he or she admits the charge. The letter from the Dean shall be sent to the student by registered mail at the last address given to the University.

12. The student shall admit or deny the charge in writing within twenty-one days of the mailing of the Dean's letter. The Dean may extend this delay only if the student could not reasonably have acted within the twenty-one days.

13. When the student admits the charge, the Dean shall apply one of the sanctions set out in Section III below.

14. There will be established in each Faculty or Division a panel from which will be drawn the committee which will hear any formal charge of plagiarism. This panel shall consist of six members of the full-time faculty named by the Faculty Council, and six undergraduate students registered in the Faculty named by the appropriate student association or associations.

15. When the student does not admit the charge, the Dean shall arrange for a hearing committee.

16. The hearing committee shall consist of two faculty members and two students named by the Dean from the panel established under II, 14 above, and in addition a fifth member, named by the Dean, who shall serve as chairman.

17. The student and the instructor have the right to be present at the hearing of the charge, and to address the committee, but they shall not be present at the deliberations of the committee.

18. The Committee shall make a written and reasoned report to the Dean giving its decision on whether or not the student acted as charged. It may recommend a sanction.

19. If the committee does not uphold the charge, the Dean shall so inform the student, the chairman of the department and the instructor of the course.

20. If the committee upholds the charge, the Dean shall apply one of the sanctions set out in Section III below. The Dean shall send a statement of his or her decision together with a copy of the report of the committee to the student, the instructor of the course, the chairman of the department, and the Registrar.

21. The student and the instructor shall have a right to appeal to the Senate Appeals Committee on Cheating and Plagiarism against either the decision or the sanation. Notice of such appeal must be made in writing to the Secretary of Senate within twenty-one days of the decision. These delays may be extended in exceptional circumstances by the Senate Appeals Committee on Cheating and Plagiarism.

22. The decision of the Senate Appeals Committee on Cheating and Plagiarism shall be final.

III. Sanctions Relating to a Formal Charge

1. Where a hearing committee established under II, 16 above finds a student has committed plagiarism, the Dean shall impose one of the following sanctions:

a) the imposition of a failing grade for the course in which the plagiarism occurred; ineligibility to write a supplemental examination for the course; and the obligation to take and pass the equivalent of one six-credit course (i.e. one full-course or two half courses) in addition to the total number of credits required for the programme. The course to be taken may be specified;

b) the sanction as provided in subsection (a) above, with the obligation to take and pass the equivalent of a further one, two or three six-credit courses in addition to the total number of credits required for the programme. The courses to be taken may be specified;

c) the sanction provided in subsection (a) or (b) and suspension from the university for the remainder of the year;

d) the sanction provided in subsection (c) and suspension for an additional period of not more than one year;

e) the imposition of a failing grade for the course in which the plagiarism occurred and expulsion from the University.

A year shall begin on September 1 and end on August 31 if the charge relates to an act occurring in the Regular Session, and from May 1 to April 31 if the charge relates to an act occurring in the Summer Session.

2. Should the student not be registered in a programme, the sanction shall either be the relevant part of (a) or that provided in (c), (d) or (e).

3. If a suspended student fails the year in which he or she was suspended and wishes to be readmitted, that student must apply for readmission.

4. Should a student either admit or be found to have committed plagiarism for the second time in accordance with II, 2(c); II, 2(d); II, 13 or II, 20, and subject to the results of any appeal as provided for in these regulations, the student shall be expelled from the University.

5. A sanction of suspension or expulsion is subject to confirmation by the Rector.

16.3.11 REGULATIONS REGARDING MULTIPLE SUBMISSION OF PROJECTS (UNDERGRADUATE)

I. General

1. It is the normal expectation that a project or term paper or analogous student submission for purposes of evaluation in a course shall not be submitted for evaluation in a second course. Thus, multiple submission is considered deceit unless, and only unless, the student has received prior written permission from the instructor in each of the courses in question.

2. Multiple submission, for the purposes of these regulations, means the submision by a student of the same project without significant change more than once without securing the permission of the professor(s) prior to submission of the project. Projects may include term papers, essays, reports and class assignments. Multiple submission includes submission more than once in the same and different sessions, to the same or different professors and in the same or different courses. A student intending to make changes in a previously submitted project is advised to consult with the professor concerned prior to submission. *No student may submit a similar project to one previously submitted for credit in two different courses without prior written permission from instructors in each course.*

3. Wherever there is doubt or ambiguity regarding any provision in these regulations, or the procedure to be followed, that interpretation or procedure shall be adopted

which appears most equitable, consistent with the general purposes and philosophy of these regulations.

4. Wherever reference is made in these regulations to an official of the University and that official is unable to exercise his or her functions, the person replacing the official shall carry out those functions.

II. Procedures and Sanctions

1. If an instructor has reason to believe that a student has submitted, without permission, a similar project to one previously submitted in a course for which a grade had been received, the instructor shall inform the student and discuss the circumstances.

2. After such discussion, the instructor shall:

a) decide that no further action is necessary; or

b) require that the work be submitted with appropriate changes; or

c) give the student a failing grade in the project or course; or

d) refer the matter to the chairman of the department.

3. If the instructor's decision is that set out in 2(a) or (b), the matter shall be considered closed. If the decision is that set out in 2(c), the student may appeal to the chairman of the department.

4. Should a student appeal a decision as set out in 2(c), the chairman of the department, after consultation with the instructor and the student, shall:

a) uphold the award of a failing grade; or

b) cancel the failing grade and require that the work be graded as originally submitted; or

c) cancel the failing grade and require that the work be re-submitted to the instructor with appropriate changes.

5. If the matter is referred to the chairman as set out in 2(d), the chairman of the department, after discussion with the instructor and the student, shall:

a) decide that no further action is necessary; or

b) require that the work be submitted with appropriate changes; or

c) give the student a failing grade in the project or course.

6. If instructors have reason to believe that a student has submitted, without permission, the same project without significant change to two courses conducted simultaneously, the instructors shall inform the chairman or chairmen of the department(s) concerned.

7. The chairman(men) of the department(s), after discussion with the student and the instructors, shall:

a) decide that no further action is necessary; or

b) require that the work for one course be submitted with appropriate changes; or

c) give the student a failing grade in the project submitted to one course or a failing grade in one course.

8. Should a student appeal a decision as set out in 5(c) or 7(c) the chairman of the department shall refer the matter to an appropriate faculty committee which after consultation with the student, instructor and the chairman, shall:

a) uphold the awarding of a failing grade; or

b) cancel the failing grade and require that the work be graded as originally submitted; or

c) cancel the failing grade and require that the work be re-submitted to the instructor with appropriate changes.

The committee's decision shall be final.

9. Should a professor appeal a decision as set out in 4, 5, or 7 the chairman of the department shall refer the matter to an appropriate faculty committee which shall:

a) decide that no further action is necessary; or

b) require that the work be re-submitted with appropriate changes; or

c) give the student a failing grade in the project or course.

10. The composition of an appeal committee as described in 8 and 9 shall be two faculty members and two students named by the Dean and, in addition, a fifth member named by the Dean who shall serve as chairman.

11. Should a student be found to have committed multiple submission without permission a second time in accordance with 2(c) or 5(c), and subject to the results of any appeal as provided for in these regulations, the student shall be suspended or expelled from the University.

12. A sanction of suspension or expulsion is subject to confirmation by the Rector.

Loyola
College
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17 Convocation Medals and Prizes

17.1 GOVERNOR GENERAL'S AWARD

17.2 UNIVERSITY AWARDS

17.3 FACULTY OF ARTS AND SCIENCE AWARDS
17.3.1 Division I
17.3.2 Division II
17.3.3 Division III
17.3.4 Division IV

17.4 FACULTY OF COMMERCE AND ADMINISTRATION AWARDS

17.5 FACULTY OF ENGINEERING AWARDS

17.6 FACULTY OF FINE ARTS AWARDS

17.7 SPECIAL AWARDS

17 Convocation Medals and Prizes

17.1 Governor General's Award

The Governor-General's Medal
Presented by his Excellency, the Governor General of Canada, and awarded to the highest ranking student graduating from Concordia University.

17.2 University Awards

The Birks Medal
Presented by Henry Birks & Sons (Montreal) Ltd., and awarded to the highest ranking student graduating with the degree of Bachelor of Arts.

The Mappin Medal
Presented by Mappin's Ltd., and awarded to the highest ranking student graduating with the degree of Bachelor of Science.

The Frosst Medal
Presented by Charles E. Frosst & Co., and awarded to the highest ranking student graduating with the degree of Bachelor of Commerce.

The Administration Medal
Awarded to the highest ranking student graduating with the degree of Bachelor of Administration.

The Chait Medal
Awarded to the highest ranking student graduating with the degree of Bachelor of Engineering.

The Alfred Pinsky Medal
Awarded to the highest ranking student graduating with the degree of Bachelor of Fine Arts.

The Computer Science Medal
Awarded to the highest ranking student graduating with the degree of Bachelor of Computer Science.

The Anne Stokes Medal
Awarded to the highest ranking student graduating with the degree of Bachelor of Education in Teaching of English as a Second Language.

17.3 Faculty of Arts and Science Awards

17.3.1 DIVISION I

The Classics Book Prize
Awarded to the most outstanding graduating student in Classics.

The Communication Studies Medal
Awarded to the most outstanding graduating student in Communication Studies.

The Celanese Canada Ltd. Prize for English
Awarded to the most outstanding graduating student in English.

The French Book Prize
Awarded to the most outstanding graduating student in French.

The Martin Lewis Memorial Book Prize in History
Awarded to the most outstanding graduating student in History.

The Journalism Book Prize
Awarded to the most outstanding graduating student in Journalism.

The Library Studies Plaque
Awarded to the most outstanding graduating student in Library Studies.

The Modern Languages and Linguistics Plaque
Awarded to the most outstanding graduating student in Modern Languages and Linguistics.

The W.R. Fraser Medal for Philosophy
Awarded to the most outstanding graduating student in Philosophy.

The Theological Studies Medal
Presented by the Most Reverend Leonard J. Crowley, and awarded to the most outstanding graduating student in Theological Studies.

17.3.2 DIVISION II

The Robert C. Rae Book Prize in Applied Social Science
Awarded to the most outstanding graduating student in Applied Social Science.

The Sun Life Prize in Economics
Awarded to the most outstanding graduating student in Economics with either the Bachelor of Arts degree or the Bachelor of Commerce degree.

The Education Book Prize
Awarded to the most outstanding graduating student in Education.

The Bogdan Zaborski Medal in Geography
Awarded to the most outstanding graduating student in Geography.

The Renee Vautelet Prize for Political Science
Awarded to the most outstanding graduating student in Political Science.

The J.W. Bridges Medal for Psychology
Awarded to the most outstanding graduating student in Psychology.

The Boyd Sinyard Prize for Religion
Awarded to the most outstanding graduating student in Religion.

The Everett C. Hughes Medal for Sociology and Anthropology
Awarded to the most outstanding graduating student in Sociology and Anthropology.

17.3.3 DIVISION III

The Canadian International Paper Company Prize for Biological Sciences
Awarded to the most outstanding graduating student in Biology.

The Exercise Science Plaque
Awarded to the most outstanding graduating student in Exercise Science.

The Celanese Canada Ltd. Prize for Chemistry
Awarded to the most outstanding graduating student in Chemistry.

The André Deland Medal for Geology
Awarded to the most outstanding graduating student in Geology.

The Health Education Medal
Awarded to the most outstanding graduating student in Health Education.

The Eric O'Connor Mathematics Medal
Awarded to the most outstanding graduating student in Mathematics.

The Walter Raudorf Medal for Physics
Awarded to the most outstanding graduating student in Physics.

The Recreation and Leisure Studies Medal
Awarded to the most outstanding graduating student in Recreation and Leisure Studies.

17.3.4 DIVISION IV

The Interdisciplinary Studies Medal
Awarded to the most outstanding graduating student in Interdisciplinary Studies.

The Women's Studies Medal
Awarded to the most outstanding graduating student in Women's Studies.

The Lonergan University College Prize
Awarded to the most outstanding graduating student in Lonergan University College.

The Liberal Arts College Prize
Awarded to the most outstanding graduating student in the Liberal Arts College.

The School of Community and Public Affairs Prize
Awarded to the most outstanding graduating student in the School of Community and Public Affairs.

17.4 Faculty of Commerce and Administration Awards

The Ross Medal for Accountancy
Awarded to the most outstanding graduating student in Accountancy.

The Finance Medal
Awarded to the most outstanding graduating student in Finance.

The Management Medal
Awarded to the most outstanding graduating student in Management.

The Marketing Medal
Awarded to the most outstanding graduating student in Marketing.

The Quantitative Methods Medal
Awarded to the most outstanding graduating student in Quantitative Methods.

17.5 Faculty of Engineering Awards

The Civil Engineering Medal
Awarded to the most outstanding graduating student in Civil Engineering.

The Electrical Engineering Medal
Awarded to the most outstanding graduating student in Electrical Engineering.

The Mechanical Engineering Medal
Awarded to the most outstanding graduating student in Mechanical Engineering.

The Building Studies Medal
Awarded to the most outstanding graduating student in Building Studies.

17.6 Faculty of Fine Arts Awards

The Performing Arts Medal
Awarded to the most outstanding graduating student in Performing Arts.

The Visual Arts Medal
Awarded to the most outstanding graduating student in Visual Arts.

17.7 Special Awards

The First Graduating Class Award

Presented by the first graduating class of Arts, Science and Commerce of Sir George Williams University known as the Guinea Pig Club, for the most outstanding new contribution, either academic or extra-curricular, to university life.

The Malone Medal

Presented in honour of Rev. Patrick G. Malone, s.j., and awarded to the graduating student who has made the outstanding contribution to non-academic activities.

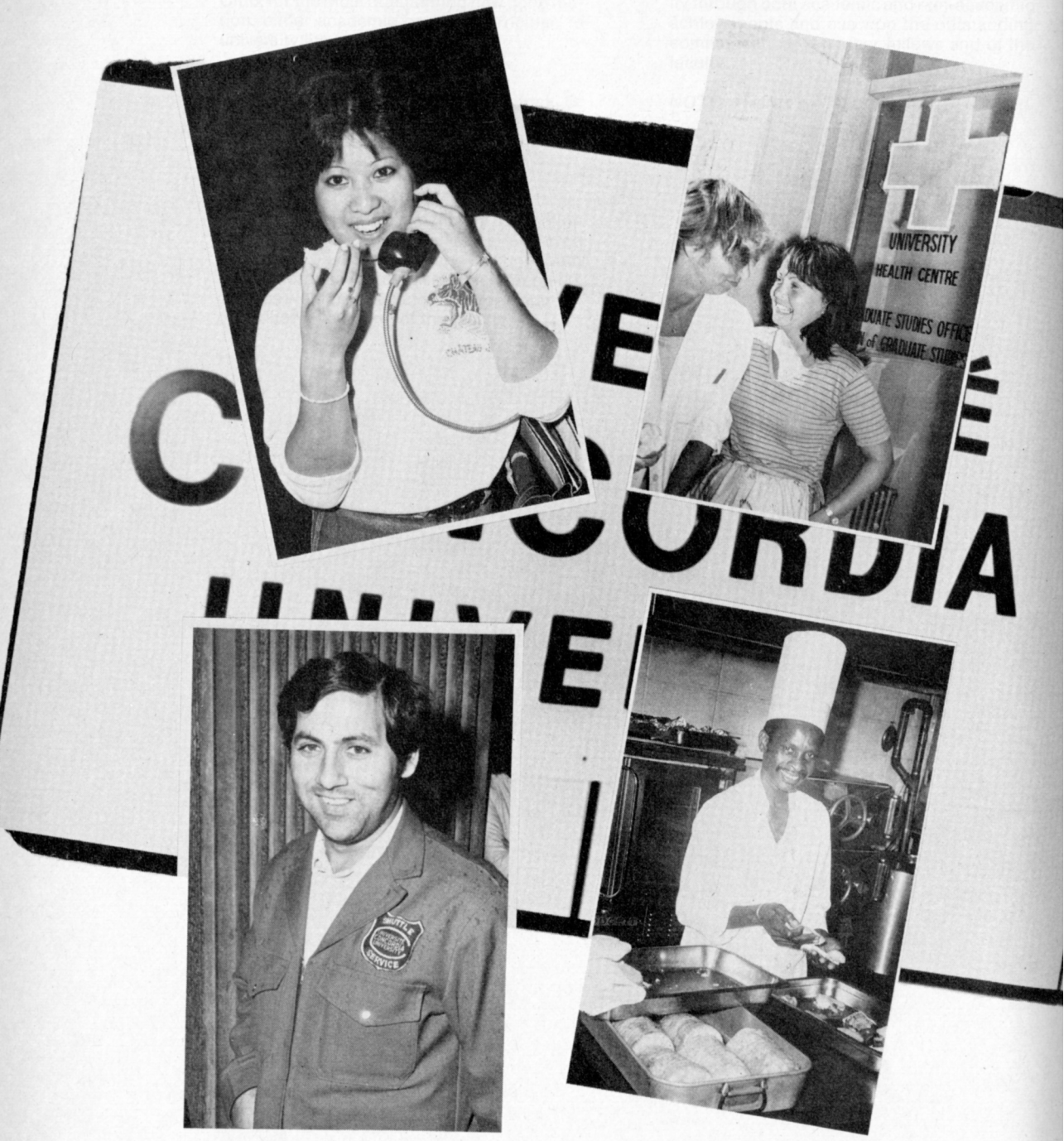
The Loyola Campus Medal

Presented by the Loyola Alumni Assocation to a graduating student who has displayed distinctive leadership ability through both academic and non-academic achievements and has won the outstanding commendation of his/her fellows and of the faculty.

The Sir George Williams Campus Medal

Presented by the Association of Alumni of Sir George Williams to a graduating student who has displayed distinctive leadership ability through both academic and non-academic achievements and has won the outstanding commendation of his/her fellows and of the faculty.

NOTE: Awards are made only when merited.


UNIVERSITY
HEALTH CENTRE
SERVICE

18 Student Services

18.1 DEPARTMENT OF PHYSICAL EDUCATION AND ATHLETICS

18.2 CONCORDIA GUIDANCE SERVICES
18.2.1 Counselling
18.2.2 Guidance Information Centre
18.2.3 Reading Training Centre
18.2.4 Canada Employment Centre

18.3 SCHOLARSHIP AND FINANCIAL AID INFORMATION
18.3.1 Concordia Wide
18.3.2 Loyola Campus Only
18.3.3 Sir George Williams Campus Only

18.4 STUDENT LIFE AND STUDENT SERVICES
18.4.1 Student Life and Student Services
18.4.2 Programme Development
18.4.3 Social and Cultural Activities
18.4.4 Health Services
18.4.5 Legal Aid
18.4.6 International Students
18.4.7 Residence and Housing
18.4.8 Campus Ministry
18.4.9 Services for Handicapped

18.5 RIGHTS AND RESPONSIBILITIES—OMBUDSMEN'S OFFICE

18.1 Department of Physical Education and Athletics

Director
E.F. ENOS

Associate Director of Athletics
D. DAIGNEAULT

Assistant Director of Athletics
P. ARSENAULT

Assistant Director of Athletics
G. SHORT

Co-ordinator of Intramurals
R. PHILIP

The Department of Physical Education and Athletics offers a complete and diversified programme to meet the varied interests of today's students. The aim is to provide an opportunity for all students to participate and not just those who play varsity sports.

A comprehensive intramural programme operates on both campuses. It provides an extensive selection of fitness, team and sport activities for men and women under the supervision of professionally trained instructors.

The Intercollegiate Varsity programme is primarily for male and female students with playing experience. Graduate-level, as well as undergraduate, students pursuing studies on a full-time basis and meeting the requirements of the Quebec University Athletic Association and of the Canadian Interuniversity Athletic Union are eligible to participate.

The south campus is the focal point of all Physical Education and Sports on the Loyola Campus. This area includes full-length playing fields and a modern physical education centre complete with an ice arena, gymnasium, weight training and exercise rooms. The Sir George Intramural programme is centered in Birks Hall and Victoria School, and in the Downtown YMCA on Drummond St.

Detailed information on physical education and athletic activities is available at the Physical Education Centre and on the Sir George Williams Campus Athletics office located at 1822 de Maisonneuve W. For further information, telephone 482-0320, Ext. 730, Loyola Campus, or 879-5840, Sir George Williams Campus.

18.2 Concordia Guidance Services

Director
J.A. SPROULE

Associate Director
F.W. DENTON

Loyola Campus
2490 West Broadway
Tel: 482-0320, Ext. 474

Sir George Williams Campus
1455 de Maisonneuve Blvd. W.
Room H-440
Tel: 879-2879

Concordia Guidance Services provides the following: (1) individual and group counselling, (2) an information service, with special emphasis upon graduate and career planning, (3) reading-skills development and study-skills programmes, (4) Canada Employment Centre.

18.2.1 COUNSELLING

Counselling is offered in the following areas:

Academic Counselling

This includes course planning, planning a major or honours programme, university familiarization and decisions pertaining to post-graduate training.

Vocational Counselling

The individual is helped to make a realistic career choice based on his interests, abilities and other needs, reconciled with the available opportunities.

Personal Counselling

Many students have problems which are not directly related to the university environment, but nevertheless affect their sense of well-being, e.g. family problems, social problems, depression, feelings of isolation. Discussion with a counsellor is usually helpful in clarifying the issues and finding a way of coping with these problems.

18.2.2 GUIDANCE INFORMATION CENTRE

The Guidance Information Centre makes available to students and staff of the University information on educational and career planning. The major areas of the collection are devoted to directories of education programmes, university calendars, and books on career choice, job hunting and résumé-writing.

18.2.3 READING TRAINING CENTRE

The Reading Training Centre offers several courses a year during the day and evening. These programmes are planned to help the student develop the skills necessary for the maintenance of acceptable academic standards.

The main focus is on the techniques of efficient reading and study skills. Some direction is given, however, in the associated learning skills of listening, note-taking and using the library.

18.2.4 CANADA EMPLOYMENT CENTRE

This service, staffed and operated in cooperation with the Canada Employment Centre, functions to assist students in exploring opportunities for part-time, summer and full-time employment. Notices from employers are posted, and students are invited to discuss these with a Placement Officer who will assist in arranging interviews with employers' representatives, as appropriate.

Loyola Campus
2490 West Broadway
Tel. 489-3885

Sir George Williams Campus
2070 Mackay Street
Tel. 283-5177

18.3 Scholarship and Financial Aid Information

Information on financial aid and scholarships is available on both campuses of Concordia University.

The Financial Aid Officers will help students find sources of financial aid available to them; explain the current regulations and norms of eligibility; and assist students in solving individual budgetary problems.

18.3.1 CONCORDIA WIDE SCHOLARSHIPS

A scholarship is awarded in recognition of outstanding academic achievement. This is the only criteria.

If a student holding a scholarship decides to change faculty, he will retain the scholarship only on condition that he receive the approval of the Scholarship Committee.

No student may hold more than one scholarship from the University at any one time.

Concordia University Entrance Scholarships

A number of tuition scholarships are available to students entering University 1. They are awarded by the Scholarship Committee on the basis of academic achievement during the first three semesters of CEGEP or equivalent. Applications are available from the Financial Aid offices and must be returned prior to March 1. These scholarships have a value of $1,000, and are renewable for two years until graduation.

January Entrance Scholarships

A number of scholarships are available to students entering in the January to April semester. Value: $500 a semester. Renewable for 5 subsequent semesters or until completion of a first degree if this should be achieved earlier.

Senior Scholarships (60 years of age and over)

A number of scholarships are awarded to students who are 60 years of age or over and who are enrolled in a 90-credit undergraduate degree programme or a graduate programme. Value is $500 each. Awards are for one year and are renewable for a maximum of four years.

M.E. (Students admitted to 108 credit programme)

These students may apply for an Entrance Scholarship when they enter the 90-credit programme. Applications to be made to their Chairman and will be considered by the Scholarship Committee on his recommendation. High academic achievement is the only criteria for such an award.

Awards to Concordia Students in Course

The Arthur Andersen & Company Scholarship

Awarded to a student entering the final year in the Bachelor of Commerce programme and major in Accountancy. To be awarded on academic merit and demonstrated leadership qualities in the classroom and in student activities or recommendation of Faculty of Commerce. Value: full-tuition.

The Stacie-Lee Bessner Memorial Scholarship

One award to a student entering second or third year in the Faculty of Commerce, on their recommendation.

The BP Canada Scholarships

To be awarded to two students in Mechanical Engineering on the recommendation of the Faculty of Engineering. Value: $500 each.

Canadian Women's Press Club Montreal Branch Scholarship

A stipend of about $500 offered annually to a Journalism student entering second or third year. Selection will be made by a committee drawn from the faculty and the profession.

Carmine Di Michele Scholarship

This scholarship is for students majoring in Italian and is to be awarded on the recommendation of the Chairman of the Department.

Pauline Donalda Memorial Scholarship

One award valued at $500 to a student in the Music Department of the Faculty of Fine Arts, on their recommendation.

The Magnus Flynn Scholarship

To honour Magnus Flynn and his years of devotion to Concordia. This scholarship will be awarded to a Commerce student majoring in Finance and Administration with high academic standing and contribution to student life on the recommendation of the Chairman.

McGraw-Smith Memorial Scholarship

This scholarship is for a student with the highest marks in any two of the following courses taken during the same academic year: Forest Geography, Agricultural Geography, History of Canada and World War II, History of World War II, Economic Botany and Eastern North American Flora. On the recommendation of your Department Chairman.

The James McQueen Scholarship

Established by the McQueen family in memory of James McQueen. To be awarded to an outstanding student in the Faculty of Engineering, on their recommendation. Value varies.

Petro Canada Scholarship

A scholarship in Industrial Engineering (process control) will be offered on the recommendation of the Engineering Department to the Scholarship Committee.

Quebec Iron & Titanium Corp. Scholarship

A scholarship to be awarded to a third-year

Mechanical Engineering student on recommendation of the Faculty of Engineering.

Student Loan Fund

Concordia has a loan fund on each campus which is administered by the office of the Dean of Students. Its operation is dependent upon the availability of funds. These funds provide students with short-term financial assistance. Application should be made to the Directors of Financial Aid.

Scholarships Offered by Companies, Associations, and Societies

Harry F. Bennett Education Fund

The purpose of this Fund is to make loans to deserving students who need financial assistance to enable them to study Engineering Sciences at university level and have proved themselves by successfully completing their first year in Engineering, or the equivalent. Engineering Institute of Canada, 2050 Mansfield St., Montreal, Quebec, H3A 1Y9.

Canadian Federation of the Blind Bursary

Bursary assistance is awarded to a registered blind person or to his or her parents. In the awarding of this bursary, preference will be given to members of the Canadian Federation of the Blind and, in particular, to people domiciled in the Province of Quebec. Mr. Gordon L. Mc. Gilton, Corresponding Secretary, Montreal Branch, Canadian Federation of the Blind, 1172 St. Matthew St., Montreal, Quebec, H3H 2H5.

Canadian Forces Benevolent Funds

The Canadian Forces Benevolent Funds considers applications from veterans for bursaries on behalf of their sons or daughters who are full-time students. Apply to the nearest local office of the Department of Veterans' Affairs.

Celanese Canada Limited

Several entrance scholarships in any course leading to a baccalaureate degree offered to the children of employees or annuitants of Chemcell or its subsidiary companies. Further information and application forms should be requested directly from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario, K1P 5H3. Completed forms, in triplicate, are to be sent directly to the same address to arrive not later than June 1.

Consumers Glass Company Limited University Education Awards Plan

Open to children or wards of employees and retired employees of Consumers Glass Company Limited for a full-time course of study in any Canadian university or college recognized by the Association of Universities and Colleges of Canada. Value: $750 per year for a maximum of four academic years, or until a first degree is obtained, whichever occurs first. Awards are automatically renewed, provided the students establish continuing eligibility and successfully complete the preceding academic year. Further information and application forms, which must be submitted by June 30, may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario, K1P 5H3.

Continental Can Company Limited (Canadian Scholarship Plan)

The Carie C. Conway Scholarship is offered to the children or grandchildren of the Company's employees. Application forms should be requested from the plant managers or district sales managers. The completed forms, in triplicate, are to be sent to the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario, K1P 5H3.

The Continental Insurance Companies (Canadian Scholarship Plan)

University entrance scholarships in courses leading to baccalaureate degrees may be applied for by the natural or adopted children, stepchildren or legal wards of one of the Continental Companies operating in Canada. Further information and application forms may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario, K1P 5H3. Applications must be sent directly to the same address no later than June 1.

Gulf Oil Canada Limited

Several university entrance scholarships are awarded annually to the children, natural or adopted, of employees and annuitants of Gulf of Canada and its subsidiary companies in Canada. Further information and application forms should be requested from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario, K1P 5H3. Completed applications, in triplicate, are to be sent directly to the same address to arrive not later than June 1.

Hungarian Canadian Engineer's Association - Student Trust Fund

Scholarships and bursaries are awarded by the Association to students of Hungarian origin or descent. Applications are evaluated on the basis of scholastic achievement, character, career plans and financial need. Information and application forms can be obtained by writing to: Hungarian Canadian Engineers Association, 5521 Randall Ave., Cote St. Luc, Quebec, H4V 2V7.

Imperial Oil Higher Education Awards

Imperial Oil Limited offers, annually, free tuition and other compulsory fees to all children or wards of employees and annuitants who proceed to higher education courses. The courses may be taken at any Canadian university or other approved institution of higher learning. Each award is tenable until the attainment of a first degree, or for a maximum of four years. To be eligible, a student must attain an average of 70% or better in a college year upon which application is based. Further information and application forms may be obtained from The Secretary, Committee on Higher Education, Imperial Oil Limited, 111 St. Clair Ave. W., Toronto, Ontario, M5W 1K3.

Iron Ore Company of Canada (Scholarship Plan)

A limited number of entrance scholarships for study towards a first degree are offered to children or wards of employees or annuitants or deceased annuitants of the parent or subsidiary companies. Further information and application forms should be requested from the Director of Awards, Association of Universities and Colleges of Canada, 151

Slater St., Ottawa, Ontario, K1P 5H3. Completed applications, in triplicate, are to be sent directly to the same address to arrive not later than June 1.

Lebanese Syrian Canadian Association
The Lebanese Syrian Canadian Association awards annually a series of scholarships to students of Lebanese, Syrian descent. The Chairman, Scholarship Committee, Lebanese Syrian Canadian Association, 40 Jean-Talon E., Montreal, Quebec, H2R 1S3.

Leonard Foundation Scholarships
Applications for scholarships must be filed before March 31 of each year. Preference in the selection of students for scholarships shall be given to the sons and daughters of clergymen, school teachers, Officers, Non-Commissioned Officers and Men (active or retired) who have served in Her Majesty's Military, Naval, or Air Forces, graduates of the Royal Military College of Canada, members of the Engineering Institute of Canada, members of the Mining and Metallurgical Institute of Canada. Mrs. R.B. White, Senior Trust Officer, Canada Permanent Trust Company, 253 Bay St., Toronto, Ontario, M5J 1K5.

Quebec Cartier Mining Company
A limited number of four-year or first degree entrance scholarships are offered to candidates whose parents or legal guardians have been employees of the company for at least four years. Further information and application forms may be obtained from the Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario, K1P 5H3.

R.C.A.F. Benevolent Fund
The Royal Canadian Air Force Benevolent Fund has made provisions for loans for the benefit of former R.C.A.F. personnel or their dependents. Apply to R.C.A.F. Benevolent Fund, 685 Cathcart St., Montreal, Quebec, H3B 1M7.

Texaco Canada Merit Scholarship Programme
Several entrance scholarships to provide up to a maximum cost for the first four years of undergraduate study, may be applied for by dependent children, natural or legally adopted, of employees or annuitants or of deceased employees who died while employed by Texaco Canada. Application forms are obtainable by an employee from his supervisor. Completed applications, in triplicate, must be sent to the following address, to arrive not later than June 1: Director of Awards, Association of Universities and Colleges of Canada, 151 Slater St., Ottawa, Ontario, K1P 5H3.

Financial Aid

Government Loan Plans
In all the Canadian provinces, a basic qualification for financial aid is that the applicant be a Canadian Citizen, or a Landed Immigrant, with one year's residence and domicile in the province to which he or she is applying. This would be the province where his or her parents make their home.

The Province of Quebec
The Province of Quebec has an extensive programme of student loans and bursaries available to students. For applications, contact the Director, Financial Aid.

The Quebec government strictly limits the distribution of loans and bursaries to "eligible" students. It is imperative that you remain "eligible" to receive your loan/bursary. If you have applied for financial aid from Quebec, do not withdraw from courses before checking with the Financial Aid Office to see if your eligibility will be affected.

Physically Handicapped
Students in any faculty, who are Canadian Citizens and have been resident and domiciled in Quebec for two years, may apply for an outright grant if they have suffered from poliomyelitis, tuberculosis, certain forms of cardiac trouble, or some other physical disability. Apply to the Director, Financial Aid.

Federal-Provincial Second Language Bursaries
For students following their post-secondary studies in their second language. Apply to the Director, Financial Aid.

Ontario
Apply to the Director, Financial Aid.

New Brunswick
Apply to the Department of Youth and Welfare, Fredericton, New Brunswick.

For the provinces of Alberta, British Columbia, Manitoba, Newfoundland, Nova Scotia, Prince Edward Island, and Saskatchewan write to the Provincial Department of Education.

Children of War Dead (Education Assistance) Act
Under this Act fees up to $800 and monthly allowances are provided for children of Canadian war veterans whose death was attributed to military service in World War I, World War II, or the Korean War. Apply to the Superintendent of Welfare Services at the nearest DVA District Office.

United States Students
Students coming to a university outside the United States may apply for a Higher Education Loan Plan loan through their home town bank. These forms must be sent to Concordia University to be filled in. They should be sent to the campus where the student will register.

Maine and Oregon
Apply through the United Student Aid Fund, form 1070, available at one's bank.

Students from other States
Apply to the Higher Education Assistance Corporation. Applications are available at one's bank.

Because of the tight money situation, it is essential that one apply as early as possible to the bank where one's parents have an account.

NOTE: APPLICATIONS FOR GOVERNMENT AID SHOULD BE MADE AS SOON AS POSSIBLE. DO NOT WAIT FOR REGISTRATION.

Bursaries

Because of the greatly increased demand for financial aid, all students must apply first to their own province or state and accept maximum loan and bursary aid from these

sources. Thus, Concordia University funds cannot normally be used to compensate for a student's failure to apply for and accept the maximum government assistance available. If a student needs more than the maximum government assistance, a bursary may be granted.

The basic principle in awarding financial aid is that the primary obligation to pay for an education rests with the students and their parents. This means that a student is expected to have savings from his or her summer employment, and that parents must contribute according to their ability.

The Financial Aid Offices exist solely to assist students and to help them find financial aid should they need it.

Birks Family Foundation

The Birks Family Foundation has established a plan of annual contributions to the Student Aid Fund of recognized Canadian universities for the creation of the Birks Family Foundation Bursaries. The bursaries are awarded by the Foundation on the recommendation of the University Scholarship Committee and are not restricted to faculty or year and may be renewed. The number and amount of such awards may vary annually, depending upon the funds available for the purpose from the Foundation.

B'nai B'rith Hillel Foundation

A limited number of bursaries are available. Amount of each bursary granted from this fund may vary according to the need of the deserving student in any year or any faculty. Apply to Hillel House.

Canadian Italian Business & Professional Men's Association

Bursaries are awarded by the Association to students of Italian origin or descent. Apply to the President, Trust Fund Committee. Application forms may be obtained from the Association at 892 Cremazie Blvd. W., Montreal, Quebec, H3N 1A4.

Jean Roberta Fowler Memorial Bursary

This bursary is available to a student in the field of Library Studies with average scholarship and in financial need. Applications may be made through the Awards Office.

The C.J. Hewitt Bursaries

From the estate of the late C.J. Hewitt a number of bursaries are available to Concordia students. Preference will be given to members of the families of employees of Hewitt Equipment Ltd., Montreal.

The awards are made during September and January by the Scholarship Committee on the recommendation of Hewitt Equipment Limited.

IBM Canada Bursary Programme

IBM Canada Ltd. makes an annual grant for bursaries to students registered in a full-time course at the University, have satisfactory standing, and demonstrate financial need. Application may be made through the Awards Office.

National Council of Jewish Women of Canada, Montreal Section, Bursaries

A limited number of bursaries are awarded by the Council upon the recommendation of the Financial Aid Director. Academic standing and financial need are considered in making the award. Although there is no legal obligation, the Council hopes that the holder will, if possible, return the money at some future time so that other students may be helped.

3M Canada Inc.

3M Canada Inc. makes an annual grant for bursaries to students registered in a full-time course at the University, have satisfactory standing, and demonstrate financial need. Application may be made through the Awards Office.

Financial Aid for Overseas Students

The scholarships, bursaries and loans offered by companies, associations, societies, foundations, departments of education and other government agencies are generally not available to students from overseas. Therefore, students on a Student Visa requiring financial aid should contact their own department of education.

The Canadian International Development Agency offers training assistance to most developing countries with which Canada has a cooperation agreement; however, the student must be nominated by his/her own government.

Students should make sure of adequate finances before coming to Canada.

A minimum of $10,700 Canadian would be required for one academic year. If a student does not plan to return home during the summer, four months of living expenses, as well as summer tuition, should also be provided for.

Concordia University Graduate Fellowships

For information on Graduate Fellowships please contact the Graduate Awards Officer, Sir George Williams Campus, Room S-302, 879-7317.

Province of Quebec Graduate Fellowships

For information on these fellowships please contact the Financial Aid Office on either campus.

Guidance Information Centre

The Centre collects information and application forms, if available, on loans, bursaries, scholarships, fellowships, grants-in-aid, etc. This includes aid offered by private foundations, associations and companies, from both Canadian and foreign sources.

18.3.2 LOYOLA CAMPUS ONLY

Scholarships:

Funded by The Loyola Foundation and restricted by the donors to Loyola students, in course. All scholarships must be applied for through your Chairman. Academic achievement is the only criteria.

NOTE: Scholarships are awarded only on the recommendation of the Chairman through the Scholarship Committee.

The Malone Scholarships

The Malone Scholarships are awarded to students on the Loyola Campus who have combined high academic achievement with leadership ability, commitment to and involvement in the community. Three scholarships. Value varies; one in each year.

Endowed Scholarships

Avon Products of Canada Scholarship

Book Bursary $50.

The Lilley F. Barry Scholarships
Four. Value: varies.

The Gordon Bennett Memorial Scholarship
From the estate of the late Mr. Gordon Bennett. Value: varies.

The Charles J. Brown Scholarship
Donated by Mr. William J. Brown in memory of his late father. Value: varies.

Ursula Carling Scholarship
From the estate of Mrs. U. Carling. Value: varies.

The Francis J. Dowling Scholarship
From the estate of the late Francis J. Dowling. Value: varies.

The Michael and Patricia Kindellan Memorial Scholarship
Established by the Kindellan Family. Value: varies.

The Kenneth J. McArdle Memorial Scholarship
Donated by Mrs. Mary McArdle. Offered to students in Science. Value: varies.

The R.C. Moore Memorial Scholarship
Open to a Loyola Campus student who does not already possess a scholarship, enrolled in either Honours Mathematics or Specialization in Mathematics (formerly Major in Mathematics), and entering third year to be awarded on the basis of the marks obtained in Mathematics courses taken during first and second years. One. Value: varies.

Mrs. John Moriarty Scholarship
From the estate of Mrs. John Moriarty. Value: varies.

The Winnifred O'Reilly Memorial Scholarship
From the estate of Mrs. W. O'Reilly. Value: varies.

The Clarence G. Smith Memorial Scholarship
From the estate of Mrs. Elizabeth M. Smith in memory of her son, Clarence G. Smith. Value: varies.

St. Ignatius Men's Association Scholarship
Donated by the Members of the Association. Value: varies. Open to students in Arts.

The James Weber Memorial Scholarships
Awarded in memory of a member of the Class of 1970. Number and value vary. Apply Director, Financial Aid.

Bursaries

The Loyola News Memorial Bursary
Awarded annually to a spring graduate who has combined community involvement and a 70% average. The student may apply or be nominated. One. Value: varies.

The George V. Uihlein Memorial Bursary
Awarded annually to a spring graduate who has an outstanding record in non-athletic extra-curricular activities and not less than a "B" average. The student may apply or be nominated. One. Value: varies.

Loan Funds

Through the generosity of the Birks Family Foundation, the B'nai B'rith Hillel Foundation, and the National Council of Jewish Women, a certain amount of money has been placed with Loyola Campus to help students who demonstrate need and responsibility. Apply to Director, Financial Aid, Loyola Campus.

18.3.3 SIR GEORGE WILLIAMS CAMPUS ONLY

Undergraduate Scholarships

Funded by the donors and restricted to Sir George Williams Campus students only. These must be applied for through your Chairman and are awarded only upon his recommendation.

NOTE: Scholarships are awarded on the recommendation of the Chairman through the Scholarship Committee. Academic achievement is the only criteria.

Association of Alumni Presidents' Scholarship
A scholarship is awarded to any student in any year or faculty on the basis of outstanding academic achievement during the preceding academic year.

The Anne Savage Memorial Scholarship
Anne Savage was a pioneer Canadian Art Educator and Painter who died in 1971. The Anne Savage Memorial Scholarship was initiated after her death with contributions made to the Fine Arts Department of Sir George Williams University in her memory by friends and former students. The Bursary is awarded annually to an outstanding student in Art Education. Recipients are selected on the basis of artistic and academic achievement, and commitment to the vocation of teaching. In making this award, the Art Education Department of the Faculty of Fine Arts hopes to carry on the tradition of dedication, innovation, and quality established by Anne Savage during her lifetime and to assist students preparing for careers as artist teachers.

Compton-Lamb Memorial Fund
This scholarship, established in memory of the late Neil Compton and Sidney Lamb, is awarded annually in the Department of English. The recipient must be registering in the last five courses of an English Honours programme. Application should be made to the Chairman, Department of English.

Henry F. Hall Scholarship
Established by the faculty and staff of Sir George Williams University in recognition of the many years of service given to the University by the late Dr. Henry F. Hall. This scholarship is awarded annually on the basis of merit to a student in any faculty of the University.

Lucille Irvine Memorial Scholarship
This scholarship is awarded annually on the recommendation of the Chairman, Department of Psychology, to an outstanding student of Psychology. This scholarship was established by Mrs. William Broidy in loving memory of the late Lucille Irvine, a devoted teacher and a former member of the University staff.

Kodak Scholarship
These scholarships will be awarded to Cinema students of outstanding merit upon the recommendation of the Faculty of Fine Arts.

Helen McNicoll Art Prize
This prize is awarded in alternate years to third-year students who have shown exceptional talent in Visual Arts, and to third-year students who have excelled in Art History (preferably Canadian or North American). Both selections are to be made upon the recommendation of the Faculty of Fine Arts. Value according to funds on hand.

Myer F. Pollock Scholarship
Awarded annually to a student in the Faculty of Engineering on the basis of high scholastic achievement. The value of this award fluctuates according to the current interest rates.

The P.T.R. Pugsley Memorial Scholarship
Established by friends of the late Professor Pugsley to commemorate his many years of service as senior Professor of the Faculty of Commerce of Sir George Williams University. The scholarship of $150 is awarded annually to an outstanding student in the Faculty of Commerce.

Weldon Scholarship
Awarded annually to a deserving student in the Faculty of Engineering. The value of this scholarship fluctuates according to current interest rates.

Undergraduate Scholarships-Bursaries
Note: These awards are made on the basis of financial need and high academic standing. Applications for these awards should be sent to the Financial Aid Officer, unless otherwise stated.

Association of Alumni Scholarship-Bursary
$100 is awarded annually to an undergraduate student in any faculty on the basis of need and academic standing.

Joel Birenbaum Memorial Scholarship/Bursary
This bursary is awarded each year in memory of Joel Birenbaum, a student of Sir George Williams University. This award will be made to a needy, worthy student in the Science Division. The value of this bursary may fluctuate according to the current interest rates.

Donald Buchanan Scholarship/Bursary
This award will be based on academic achievement, coupled with financial need. Awarded to a student in any faculty.

Henry I. Chinks Memorial Scholarship/Bursary
Awarded annually on the basis of need and academic standing to an evening student in the Faculty of Science, in the field of Chemistry. Recipient is chosen by the Chairman, Department of Chemistry.

Engineers' Wives Association Scholarship/Bursary
This fund was established by the Engineers' Wives Association, to be awarded to needy students, preferably in first year Engineering. Value varies.

Professor James Gilchrist Finnie Scholarship-Bursary Fund
A sum of money to be made available annually to needy and deserving students entering their final year. These bursaries shall be awarded at the discretion of the Financial Aid Committee.

Michael Hendriks Memorial Scholarship/Bursary
This award will be granted to a final-year student in the Faculty of Fine Arts, based on academic excellence and financial need.

Joseph Gilbert Joyce Memorial Scholarship/Bursary
This scholarship or bursary will be awarded to a part-time student in any faculty or year. The basis of the award will be academic standing, financial need and promise in his or her chosen field of study. The late Rev. J.G. Joyce, during his twenty-four years' ministry at Verdun United Church, maintained a deep interest in the Evening Division of the University. This scholarship is established according to his conviction that knowledge and higher education should be available to those seeking to make a creative contribution to the development of mankind.

Marsh & McLennan Centennial Scholarship/Bursary
The Marsh and McLennan Limited Centennial Scholarship or bursary will be awarded annually to an undergraduate student who has completed at least one year at Concordia University, Sir George Williams Campus. Selection will be made according to need and academic standing. (Preference will be given to a Commerce student.)

Manual Life Scholarship/Bursary
To be awarded to a student entering final year in undergraduate programme, majoring or honouring in Sociology. This award is based on academic standing and financial need in alternate years.

Nathan H. Messer Scholarship/Bursary
Two scholarship-bursaries will be awarded annually to needy, worthy students entering their final year and majoring or honouring in Accountancy.

The Tony Robinson Career Enhancement Scholarship/Bursary
To be awarded to an applicant forty-five years of age or older who plans to engage in full-time or part-time studies toward an undergraduate degree or diploma.

The applicant may be a Landed Immigrant or Canadian Citizen needing to engage in a university programme to change or upgrade his or her career qualifications, or a person who had an interruption in his or her university programme, and now wishes to continue.
Applicants for this scholarship assistance will be considered on the basis of merit and financial need.

Walter Stenhouse Scholarship/Bursary
This bursary of $75 established by Mrs. E. Pavey and Mrs. J. Tombs, and awarded under the auspices of the Arts Club of Montreal, is available to a final-year student in the Faculty of Fine Arts. Apply to the Fine Arts Faculty.

The Professor J.P. Szweig Award
This scholarship/bursary will be awarded to a student in the Psychology of Fitness, Exercise and/or Behavioural Medicine on the basis of high scholastic achievement and a substantial contribution in the Psychology of Fitness with financial need.

Undergraduate Bursaries
Note: These awards are made on the basis of financial need, subject to a passing grade.

All applications should be submitted to the Financial Aid Officer unless otherwise indicated.

Birks Family Foundation Bursaries

These bursaries are available to students in any faculty, recommended by the University. They may be renewed annually to successful students until graduation. The number and amount of awards may vary from year to year depending on the funds available from the Foundation.

The Ethel Campbell-P.E.O. Memorial Bursary

Established by Colin C. Campbell in loving memory of his wife, Ethel May Routledge Campbell, in recognition of her dedication to the aims, objectives, and the moral principles of the P.E.O. Sisterhood. This award is to assist a female student toward the financing of her university programme.

The J.P. Copland Memorial Bursaries

Awarded on the basis of financial need and academic standing.

St. Andrew's Society Bursary

$200—Established by the St. Andrew's Society of Montreal, for a needy student, preferably of Scottish descent, proceeding to a degree. Administered by the St. Andrew's Society. Apply: Director, Financial Aid. Awarded in alternate years by campus.

Theodore Ronis Memorial Bursary

This bursary is established by the friends of the late Theodore Ronis to perpetuate the memory of his friendship, through the annual gift of a bursary to a deserving student. The recipient should be studying preferably, but not necessarily, towards a Bachelor of Commerce degree, and be a male student.

Royal Albert Lodge Bursary

To be awarded as scholarships and bursaries to a) children of members of the Royal Albert Lodge, b) children of members of other Masonic Lodges. If neither A nor B qualify, any worthy student may apply to receive the scholarship or bursary.

18.4 Student Life and Student Services

Dean of Students
B.T. COUNIHAN

Assistant Deans
D. INSLEAY
J. RICHARDSON

Financial Aid
M.-C. BRAULT

International Student Adviser
E. MOREY

Co-ordinator of Handicapped Services
A. KERBY

18.4.1 STUDENT LIFE AND STUDENT SERVICES

Many para-academic and out-of-class programmes are organized on each campus under the auspices of the Dean of Students. These programmes are designed to enrich students' cultural and social life and broaden their university experience.

Also available are special services such as legal aid, health centres, and housing bureaus.

The Concordia Council on Student Life, a body responsible for student service policies and budgets, studies the range of student life on both campuses. It is composed of 8 students, 2 faculty members, 6 members of the student services staff. The Vice-Rector, Academic and Student Services chairs the Council. Its meetings are open to all members of the University community.

18.4.2 PROGRAMME DEVELOPMENT

Programme Development explores the area of education and the process of learning outside the classroom. A number of on-campus workshops and sessions are sponsored each year.

The *Lacolle Centre for Educational Innovation* is a one hundred and fifty year old farmhouse, occupying 20 acres of lawn and woodlot about forty miles south of Montreal. It accommodates twenty-four people comfortably with four bedrooms, three meeting rooms, and a fully-equipped kitchen. It was established by the Loyola Campus of Concordia University in 1971, with the purpose of extending the university experience by replacing some of the usual restrictions of a classroom setting with an informal community. This environment is designed to promote the development and understanding of relationships among people, as well as to provide an opportunity to explore new and creative approaches to learning. The primary goal of the Centre is to insure that its users will, by working collaboratively at Lacolle, discover ways to enhance their educational pursuits on the university campus.

It is available for use to anyone within the Concordia community wishing to enrich classroom education, develop effective work groups or conduct organizational meetings. Potential programmes at the Centre are limited only by the imagination and resourcefulness of its users. Professional assistance is available to assist in turning ideas into reality. We can help you in any aspect of an intended programme.

Montreal Lacolle Centre
2492 West Broadway
Tel: 482-0320, Ext. 344/494.

18.4.3 SOCIAL AND CULTURAL ACTIVITIES

Orientation

Orientation is designed to familiarize new students with the various services and facilities available to them, and to help new students resolve any problems that may be encountered during their introduction to university life.

Social and Cultural Activities

Among other social and cultural activities available are Lunchtime Listening, a Light Entertainment Series, and a Workshop that offers instruction in photography and silk-screen printing.

There is a students' cafeteria and pub on each campus. The Loyola Campus Centre also provides lounge facilities and a games room.

18.4.4 HEALTH SERVICES

The Health Centres provide an individualized and comprehensive approach to Health Care including counselling and teaching related to physical and mental health. They operate on a clinic basis with a varying schedule of doctor coverage. Nurses who are experienced in dealing with health concerns of university students are available without appointment. Appointments with the various physicians can be made in consultation with a nurse. (N.B. on the Sir George Williams Campus appointments are required except in an emergency situation.) For those areas which are not within the realm of the Health Services, referral to existing community resources and specialists is arranged. Services of the Health Centres are available to all students, staff and faculty both full- and part-time.

Loyola Campus
Centennial Building
Tel: 482-0320, Ext. 480
Office Hours:
9:00 a.m. to 6:00 p.m. Monday to Thursday
9:00 a.m. to 5:00 p.m. Friday.
Closed from 12:00 a.m. to 1:30 p.m.,
Monday to Friday, except for emergencies.

Sir George Williams Campus
2145 Mackay Street
Tel: 879-4010/4011/4012

Office Hours:
9:00 a.m. to 10:00 p.m. Monday, Tuesday, Thursday during University terms and Summer sessions.
9:00 a.m. to 6:00 p.m. Wednesday
9:00 a.m. to 5:00 p.m. Monday to Friday at all other times.

18.4.5 LEGAL AID

Advice and help are offered to students requiring assistance on matters relating to their legal rights. An appointment to see a lawyer can be arranged on either campus.

Commissioners of Oaths are also available.

Loyola Campus
Legal Information Office
Hingston Hall, Room 420
Tel: 482-0320, Ext. 512

Sir George Williams Campus
Dean of Students Office
Annex M
2135 Mackay Street
Tel: 879-4370/5981

18.4.6 INTERNATIONAL STUDENTS

The International Student Adviser provides information to International students regarding matters pertaining to the Canadian and Québec Departments of Immigration, including Student Authorizations (Federal), Certificat d'Acceptations (Provincial), faculty changes and travel visas.

Financial aid, academic and para-academic problems are either referred to the proper person or administered by the International Student Adviser.

This office also initiates programmes for and by International Students.

International Student Office
2135 Mackay Street
Tel. 879-2840

International Students' Health and Accident Insurance

Students on Student Visas are not eligible for the provincial medical programme. The high cost of hospital care in Quebec has prompted Concordia to arrange for an insurance policy which covers hospital expenses incurred as the result of accidental injury or an illness. The premium for this policy is approximately $300. This policy is compulsory for all International students attending Concordia as full-time students. The plan provides either single or married coverage. For details about the coverage, contact the Dean of Students Office.

International Students' Finances

PLEASE NOTE THAT ACADEMIC EXPENSES, INCLUDING TUITION AND OTHER COMPULSORY FEES FOR INTERNATIONAL STUDENTS, ARE APPROXIMATELY $2065 PER SESSION, OR $4128 FOR THE REGULAR SESSION (SEPTEMBER TO MAY). IMMIGRATION REGULATIONS NORMALLY DO NOT PERMIT STUDENT-VISA HOLDERS TO ACCEPT ANY FORM OF EMPLOYMENT EITHER FULL- OR PART-TIME DURING THEIR STUDIES IN CANADA. The minimum expenses a student may expect are the following (to be paid in **Canadian Funds**):

Books and Supplies	$ 400
Lodging	$2500
Food	$1500
Insurance and related expenses	$ 350
Clothing	$ 500
Miscellaneous	$ 800
Plus tuition and related fees	$4500
Cost for one academic year (8 months) approximately	$10550

These costs have been calculated on the value of Canadian currency and cover only the eight-month Regular Session.

International students are required to present evidence to immigration authorities that they have adequate funds for their studies in Canada.

NEITHER CONCORDIA NOR THE CANADIAN GOVERNMENT PROVIDES FINANCIAL ASSISTANCE TO INTERNATIONAL STUDENTS.

A STUDENT MUST BE A CANADIAN CITIZEN OR A LANDED IMMIGRANT, OR HOLD A VALID WORK PERMIT IN ORDER TO WORK IN CANADA.

18.4.7 RESIDENCES AND HOUSING

RESIDENCES—Loyola Campus Only

Two buildings provide on-campus accommodation for 250 students. Hingston has a modern dormitory style while Langley has traditional apartment-styled rooms. Both halls are co-ed with the exception of an all-women section in Langley. Rooms are furnished with linen and bedding provided. Communal kitchens and public telephones are on each floor. Lounges have colour T.V.'s while games rooms have pool and ping pong tables. Laundry facilities and personal mailboxes are located in each building. Many activities and outings are especially organized for resident students.

By law, students are required to sign leases. These leases will follow the academic year (September to May). Students wishing to contract for only one semester can apply for special arrangements.

Residence Fees

Room rates ar the same at both Hingston and Langley Halls. Since 1983-84 rates were not available at time of publication, 1982-83 rates are cited below to provide you with a guideline to estimate costs. These rates do NOT include meal service.

Single Room	$1,362.00
Double Room	$1,235.00

While effort will be made to meet specific requests for specific rooms or particular locations, assignments will depend upon availability of space. Since the number of rooms available is very limited, applications should reach the Director before June 1st. Since **acceptance to the University does not guarantee admission to residence,** a separate application for on-campus housing must be sent to:

Ms. Marjorie MacKinnon
The Director of Residences
Room 156, Hingston Hall
Loyola Campus
Concordia University
7141Sherbrooke Street West
Montreal, Quebec
H4B 1R6

OFF-CAMPUS HOUSING

Loyola Campus

Those students wishing to find off-campus accommodations near Loyola should check the "Off-Campus Housing Listings Board" outside Room 158 in Hingston Hall.
Tel. 482-0320, Ext. 528/529

Sir George Williams Campus

For further information contact:
Office of the Dean of Students
Annex M
2135 Mackay Street
Tel: 879-5981

CHILD CARE

Child Care Services are offered for children of students, faculty and staff. Parents may enroll children 2½ to 5 years of age in the Child Care Centre located at 2305 St. Marc St. Application forms and details may be obtained at the information desk in the Hall Building or at the Centre. Telephone 879-4577.

18.4.8 CAMPUS MINISTRY

A major concern of the campus ministry is to deepen personal awareness and awaken a sense of social responsibility both within the University community and outside.

During the academic year chaplains representing different religious heritages organize various programmes of interest to the University community and are also available for personal religious guidance and counselling.

Loyola Campus

Belmore House
3500 Belmore Ave.
Tel: 484-4093

Sir George Williams Campus

Hall Building, Room 333
1455 de Maisonneuve West
Tel: 879-4551
Chaplain
M.I. TERHO, M.Div.

18.4.9 SERVICES FOR HANDICAPPED

Special services are provided through the Dean of Students Offices on each campus for those students with physical disabilities. Services include special orientation, maps, assistance in classroom adaptation, accessibility guides to the campuses, equipment resources, advocacy services with student governments and administration, volunteers, referrals, and inter-campus transportation.

Loyola Campus

Co-ordinator of Handicapped Services
Administration Bldg., Room 135
Tel: 482-0320, Ext. 358

Sir George Williams Campus

Handicapped Information Centre
Hall Building, Room 580-2
Tel: 879-8189

18.5 Rights and Responsibilities—Ombudsmen's Office

CODE OF CONDUCT (NON-ACADEMIC) —CONCORDIA UNIVERSITY

PART I

General

1. The Concordia University Code sets out regulations and procedures for handling formal complaints made by one member of the University against another member either personally or on behalf of the University. The ombuds operation is part of the code, and the whole is subject to a supervisory board.

2. The code applies to all the premises of the University, whether owned or rented, and also to activities conducted elsewhere by the University or by a body responsible to the University.

3. The code applies to all students, faculty and staff of the University, whether full-time or part-time. Both independent and Continuing Education students are included. However, persons working on University premises under contractual agreement between the University and their direct employer, such as the employees of catering and maintenance services, do not come within the code.

4. The code does not supersede the terms of tenure and associated regulations, the University grievance procedure, or any collective agreement signed by the University. The code does not replace or supersede any of the academic regulations or procedures of the University or of the University library. However, the mandate of the ombuds office includes the right of inquiry into the application of any of the regulations or procedures apart from those covered by a collective agreement with a certified bargaining unit.

5. Disciplinary authority in the University is vested in the Board of Governors. It remains the duty, as well as the right, of faculty members and administrators to exercise such authority in areas or matters within their own jurisdiction. Faculty members are expected to take whatever immediate action is needed to ensure the continuing order of their courses and administrators to take whatever immediate action is needed to ensure the proper functioning of the services or areas for which they are responsible.

6. The Rector, as chief administrative officer of the University, and only the Rector or his duly appointed delegate, has the right to suspend temporarily a student or member of the faculty or staff consequent upon action taken in line with paragraph 5. In the event of such a temporary suspension, appropriate procedures for final disposition of the situation will be set in motion as soon as possible.

7. Although faculty members or administrators may take immediate action of the kind referred to in paragraph 5 above, a person against whom such action is directed and who believes the action unjustified may have recourse to the complaint procedures.

8. All those who study, teach or work at the University are subject to the laws of the land, and have recourse to those laws. The same holds true for the University as a corporate entity. Should an act appear to infringe an individual's legal rights, that individual can decide whether to take legal action irrespective of whether recourse has been had to the provisions of this code. Similarly, the University, acting through its authorized representatives, has the right at any time to take whatever legal action is deemed appropriate.

9. Should there arise doubt or ambiguity regarding any provision in these regulations, or the procedure to be followed, that interpretation or procedure shall be adopted that appears most equitable, consistent with the philosophy and general purposes of the code.

Governing Principles

10. The University is an institution of higher education dedicated to the pursuit of truth and to the advancement and dissemination of knowledge. All those who study, teach or work at the University must be concerned with maintaining the freedoms essential for those purposes, notably the freedoms to teach; to engage in research and to create; to learn; to study; to speak freely; to associate and to assemble; to write and to publish. The rights deriving from these freedoms cannot be maintained unless related responsibilities are accepted.

11. The University has the rights of a duly incorporated institution of higher education, and it has responsibilities to those who are part of it, as well as to the community at large. Each member also has rights and responsibilities—in relation to other persons, the institution and the community. Mutual consideration is vital if the freedoms are to be preserved.

12. Members of the University shall have regard in particular for the rights of other members to: freedom from discrimination on such grounds as sex or sexual orientation, religious or political beliefs, racial or ethnic origin; freedom from violence, intimidation, and sexual harassment; the safeguard of dignity, reputation and honour; access to University premises; respect for property, whether personal or owned by the University for the benefit of the community; confidentiality of personal information.

12.1 The rules of natural justice will apply to all hearings under this code.

Administration of the Code

13. Any person who wishes to make a formal complaint must deliver the signed complaint in writing to the code administrator.

14. The individual complained against must be named, and the cause of the complaint must be stated with precision, detailing date, time and place.

15. The complaint must be delivered within a reasonable time of the alleged act, incident or other cause, and in no case more than two months after it. However, when the complaint involves an allegation of deception or dishonesty, this delay will begin to run from the date of discovery of the alleged deception or dishonesty.

16. There will be a code administrator, appointed by the Rector acting on the recommendation of an advisory committee composed equally of students, faculty and staff. The same person may fill the position on both campuses.

17. The code administrator will ensure that all complaint procedures are properly carried out.

18. The code administrator will issue yearly a public report indicating the nature and extent of the complaints received and handled, while protecting the anonymity and confidence of any individuals.

19. The code administrator will direct complaints against a member of the faculty or the staff to the appropriate authority under the General Complaint Procedures (Part III).

20. Complaints against a student will normally be handled under the Hearing Board System (Part II). However, the code administrator has the authority to decide that the nature of a complaint against a student is grave enough to warrant directing it to the appropriate authority under the General Complaint Procedures (Part III). This latter procedure will normally be the case with a complaint involving sexual harassment.

21. The code administrator also has the authority to investigate a complaint against a student and to attempt to settle that complaint before referring it to the Hearing Board System. In performing this function, the code administrator has the authority to impose a sanction within the range and regulations set for the Hearing Board System. (See Part II, paragraph 29 below).

22. The code administrator will inform both parties in writing of the findings of any investigation conducted under paragraph 21 above, including any sanction that is imposed.

23. If either party then refuses to accept either the findings or the sanction, the code administrator will forward the complaint to the Hearing Board System.

PART II

Hearing Board System

24. The two-stage system on each campus consists of campus boards and appeal boards.

25. Members of the boards will be drawn from a pool of forty students of whom at least seven are to be resident students. There will be twenty students chosen from each campus. Members may sit on either campus but the majority on any board will be drawn from the campus on which the incident took place. Should the incident giving rise to the complaint take place in a residence, the majority will be drawn from resident students.

26. The pool will be named annually, after due public call for candidates, by a nominating committee composed of four representatives of the Concordia University Students Association and one representative of the Graduate Students Association. The Code Administrator will act as non-voting chairman.

27. A campus board, composed of three members, will hear any complaint forwarded to it by the code administrator, and find either for or against the student complained against. A campus board has the authority to impose sanctions as set out in paragraph 29 below. An appeal may be taken against the decision of a campus board, whether on the finding or the sanction.

28. An appeal board, composed of five other members, will hear any appeal against the decision of a campus board. It will either confirm, reverse or modify the finding of the campus board, and confirm, reverse or modify the sanction. It has the authority to require a re-hearing by another campus board. There is no further appeal from a decision of the appeal board.

29. Hearing boards may impose sanctions within the following limits: a fine not exceeding $100; a deposit with related conditions, returnable at a specified date, not exceeding $200; payment not exceeding $500 as compensation for injury or damage to or loss of property; exclusion from an area or function of the University for a stated period of time. If this exceeds twelve months, the sanction will be reviewed by a campus board at the end of each twelve-month period. (This sanction does not encompass the authority to suspend from any academic activity.) The deposit mentioned in this article may be forfeited should any conditions imposed by the Board be found to have been violated.

30. The code administrator is responsible for the operation of the hearing boards, including convening each board as it is required and arranging for the appropriate recording of procedures, and ensuring that all complaints, notices, decisions and appeals are properly processed.

31. Each hearing board will sit as soon as possible, and generally, within fourteen days of the referral of a complaint or appeal to it by the administrator except in the case of a hearing involving an incident that took place in a residence when the parties will receive at least two days notice. The parties will receive at least seven days notice in writing of the sitting and copies of the complaint or appeal.

32. Each hearing board will deliver its decision in writing to both parties as soon as possible and, generally, within seven days of the conclusion of a hearing except in the case of a hearing involving an incident that took place in a residence when, generally, the decision will be delivered within three days of the hearing.

33. An appeal against a decision of a campus board must be lodged in writing, setting forth the grounds for the appeal, with the code administrator within fourteen days except in the case of an incident that took place in a residence, when the appeal must be lodged within five days.

34. The decision of a hearing board, if it is not unanimous, will be by majority vote.

35. Hearings will be closed and confidential unless a board, with the written consent of both parties, decides to admit members of the University community.

36. At a hearing by a campus board or an appeal board both parties have the right to be accompanied by an adviser, who may speak on their behalf.

37. At a hearing by a campus board both parties have the right to present witnesses.

38. In all other matters the hearing boards will determine their own procedures.

PART III

General Complaint Procedures

39. Where a complaint is to be handled under the General Complaint Procedures, the Code Administrator will forward it to the appropriate authority and send a copy of the complaint to the person complained against.

40. A complaint against a member of faculty or a person employed in a Faculty will be forwarded to the appropriate Faculty Dean or Divisional Dean.

41. A complaint against a student will be forwarded to the appropriate Faculty Dean or Divisional Dean.

42. A complaint against the Rector will be forwarded to the Chairman of the Board of Governors.

43. In the event of a complaint against any other employee of the University, the appropriate authority is the senior administrator in the following list to whom the person complained against reports most directly:

a) Rector
b) Vice-Rector, Academic (Commerce and Administration, Engineering, Fine Arts)
c) Vice-Rector, Academic (Arts and Science)
d) Vice-Rector, Administration and Finance
e) Assistant Vice-Rector and Treasurer
f) Assistant Vice-Rector, Physical Resources
g) Assistant Vice-Rector, Relations and Audit
h) Assistant Vice-Rector and Director of Libraries
i) Assistant Vice-Rector and University Registrar
j) Assistant Vice-Rector, Admissions and Liaison
k) Director of Guidance
l) Director of Athletics
m) Dean of Students, Sir George Williams Campus
n) Dean of Students, Loyola Campus
o) In the event of a complaint of sexual harrassment, the appropriate authority is a Vice-Rector named by the Rector.

43.1 In the event that the senior administrator fails to inquire into the complaint, the Code Administrator may refer it to his or her superior.

44. Where a complaint against a student is dealt with under these general complaint procedures, the code administrator will inform the appropriate Dean of Students. If the complaint is against a graduate student, the code administrator will also inform the Dean of Graduate Studies.

45. If one of the persons named as an appropriate authority has lodged a complaint against a person within his or her sphere of authority, that complaint will be forwarded to the complainant's own superior.

46. The appropriate authority will acknowledge receipt of the complaint as expeditiously as possible and send copies of such acknowledgement to the person complained against and the code administrator, as well as to the Dean of Students and to the Dean of Graduate Studies when applicable.

47. The complaint shall be inquired into in whatever manner the appropriate authority considers suitable having regard to the principles of natural justice. The appropriate authority may conduct the inquiry personally or may assign it to another individual or to a committee. If the appropriate authority or the individual or the committee decides that the allegations are founded in whole or in part, the appropriate authority shall take whatever action is deemed suitable in so far as he or she is empowered to do so, or recommend such action to those who have the power to implement it. If the inquiry has been assigned to an individual or to a committee, the appropriate authority may also assign to that individual or committee the function of taking or recommending appropriate action. Since a student can be suspended or expelled from the University only by action of the Rector, any such recommendation must be forwarded to the Rector. (Should it be recommended that a faculty member be dismissed, the dismissal provisions of the Regulations relating to Termination of Employment and Suspension of Faculty Members and not the provisions of paragraphs 50 to 55 below shall apply.)

48. Both the complainant and the person complained against must be given the opportunity to make any relevant representation, in person or in writing as they see fit.

49. The decisions referred to in paragraph 47 must be written, signed and dated, and must be reasoned. The appropriate authority shall deliver such decisions to the complainant, the person complained against, the administrator to whom the appropriate authority reports and the code administrator as well as to the Dean of Students and the Dean of Graduate Studies when applicable. The Chairman of the Board of Governors shall deliver any decisions to the Board as a whole.

50. Both the complainant and the person complained against have a right of appeal to the Board of Governors. A written and signed notice of appeal must be delivered to the Secretary of the Board of Governors within fourteen days of the rendering of the decision appealed against. This delay may be extended in exceptional cases by the Board upon an application in writing, but it shall not be extended unless the appellant could not reasonably have acted within the fourteen days. The appeal may be taken against either the decision on the merit or against the action taken or recommended, or against both. The notice must state in clear and precise terms the ground on which the appeal is based.

51. The Secretary of the Board of Governors shall send without delay copies of the notice of appeal to the appropriate authority responsible for the decision which is being appealed, to the opposite party and the code administrator as well as to the Dean of Students and the Dean of Graduate Studies when applicable. The appeal shall be placed on the agenda of the next meeting of the Board.

52. Should the appeal be lodged by the complainant, or should it be lodged by the person complained against in a case where action other than a sanction of suspension, expulsion or dismissal has been imposed or recommended, the Board of Governors shall decide whether to deal with it directly or to set up a review board, composed of persons from either within or without the University or from both, as the Board of Governors judges fit. The decision of the Board of Governors in the former case or of the review board in the latter case shall be final.

53. Should the person complained against wish to lodge an appeal in a case where a sanction of suspension, expulsion or dismissal has been imposed or recommended, he or she may elect that the appeal be dealt with according to the procedure set out in the above paragraph or may require the Board of Governors to appoint a committee of three persons from outside the University, one of whom must be a lawyer not otherwise in the employ of the University, to hear the appeal. The decision shall be final.

54. Where the choice referred to in paragraph 53 is not made, the Board of Governors shall decide whether to deal with the appeal according to the procedure set out in paragraph 52 or that set out in paragraph 53.

55. The Secretary of the Board of Governors shall communicate the decision in writ-

ing to the persons referred to in paragraph 49.

56. Wherever an official of the University is unable to exercise his or her functions, they will be carried out by that official's replacement.

57. Apart from the requirements to inform set out above, any proceedings or decisions shall be treated as confidential unless all the parties involved expressly agree that they be made public.

57.1 All delays mentioned in this Code may be extended in exceptional circumstances at the discretion of the Code Administrator.

PART IV

Ombudsmen

58. The ombuds office will consist of one full-time and two part-time ombudsmen. The office will operate on both campuses. The ombudsmen will be appointed by the Rector, acting on the recommendation of an advisory committee composed equally of students, faculty and staff. Appointment will be for two years, renewable on the recommendation of the advisory committee.

59. The part-time ombudsmen must be persons already in the employ of the University, and one of them must be a tenured member of faculty. Part-time ombudsmen will be partially released from their other duties, or be appropriately compensated.

60. The ombudsmen are free to inquire into any matter brought to their attention, and to make whatever recommendations they judge appropriate, and to whomever within the University they feel should receive them. If all the ombudsmen agree, they are also free to inquire into a matter that has not been the subject of a specific application. The ombudsmen should pay particular attention to the definition of their functions set out in Part I (General), paragraph 4.

61. On the conclusion of an inquiry, the ombuds office will on request provide an individual who applied for its services with a written report on its disposition of the matter.

62. The ombudsmen have the right to refuse to take up any case where they judge their intervention would be inappropriate, or to withdraw from a case if their continued intervention appears inappropriate, as when there has been recourse to legal proceedings. They will provide the applicant with a written statement of the reasons.

63. Recommendations of the ombudsmen may bear either on the actions or decisions of an individual or group or on the policies and practices which gave rise to such actions or decisions.

64. Any application to an ombuds office and any consequent inquiries or recommendations shall be treated as confidential unless all the parties involved expressly agree that the information be made public. Notwithstanding the above, the ombudsmen are entitled after an enquiry to publicize their recommendations if they all agree that the response to these was unsatisfactory.

65. The ombudsmen shall have immediate access to all University records, reports or other documents other than those which cannot be released for reasons of confidentiality. An ombudsman can appeal the decision of an officer of the University with regard to confidentiality to the Board of Governors. The ombudsmen will maintain the confidentiality of any confidential materials to which they have access.

66. The ombudsmen will issue yearly a public report indicating the nature and extent of their operations, while protecting the anonymity and confidence of any individuals.

PART V

Supervisory Board

67. The supervisory board will be concerned with all aspects of the University Code.

68. There will be seven members appointed by the Board of Governors; two representatives each of the students, faculty, and staff, with the Executive Assistant to the Rector serving as chairman. The student members will be nominated jointly by the student associations, the faculty members by CUFA, and the staff members by the Rector's Cabinet in consultation with CUNASA.

69. Appointments will be for one year, and will be renewable.

70. The board will review the reports of both the code administrator and the ombudsmen, and make any recommendations it judges appropriate to the Rector, including recommendations for amendment to the code.

71. The supervisory board will be especially concerned with the equity of the sanctions applied to different individuals or categories of individuals.

72. A member of the University community may apply to the board to review the operation of any aspect of the code. In such instances, the function of the board will be to ensure that the procedures have been properly followed, including the way in which paragraph 20 of the section on Administration of the Code has been applied by the code administrator.

73. Three members of the board may require at any time that the board meet to review any aspect of the implementation of the code.

TICKETS ON SALE
WELCOME BACK
PLAY FEES
WELCOME BACK
PLAY FEES
C.O.R. 82
Budweiser

CUSA 2

Concordia
Orientation
Program

19 Student Associations

19.1 UNDERGRADUATE STUDENTS

19.2 GRADUATE STUDENTS

19.3 ALUMNI
19.3.1 Sir George Williams Association of Alumni
19.3.2 Loyola of Montreal Alumni Association

19 Student Associations

19.1 UNDERGRADUATE STUDENTS

Concordia University Students Association

The Concordia University Students Association (CUSA) represents the undergraduate students, both full-time and part-time. Besides itself organizing a considerable number of events and activities, CUSA ensures student representation on the University decision-making bodies, both those that legislate on academic matters and those concerned with the cultural and social life of the community. There are student members of the Board of Governors, Senate and the various Faculty Councils, and of course of the Concordia Council on Student Life, which is directly concerned with the provision of student services.

Powers and responsibilities are divided between three bodies: the Executive, the Legislative Council, and the Judicial Board. The Executive is headed by two elected co-Presidents. The Legislative Council consists of the elected representatives of the four Faculties. The Judicial Board is an appointed body charged with assuring the constitutionality of any new legislation.

There are over 75 member clubs and associations. They may be associated with a department or discipline like the Psychology Students Association or pursue a special interest like the Debating Society. Each has its own programme of activities, which receives funding from CUSA. In addition there is a number of clubs and associations for students of particular ethnic backgrounds.

Other activities that come under the CUSA umbrella are the student paper, The Link, the television station and two radio stations, and the Concordia Winter Carnival.

There is a CUSA office on each campus. The Sir George Williams office is in Room H-639 of the Hall Building (879-4500). The Loyola office is in Room 305 of the Centennial Building, 6931 Sherbrooke St. W. (482-9280).

19.2 GRADUATE STUDENTS

Graduate students become members of the Graduate Students Association (GSA). It is concerned with graduate student representation on the decision-making bodies and initiates a wide range of activities for graduate students and the University community as a whole, including social occasions, lectures and concerts. The association publishes a regular newsletter. Its offices are at 2160 Bishop Street.

19.3 ALUMNI

There are two alumni associations. On graduation, students are asked which association they want to join - the Sir George Williams Association of Alumni or the Loyola of Montreal Alumni Association, in order to continue their affiliation with the University.

Each association sponsors and organizes a variety of activities for its members. All graduates regularly receive Concordia University Magazine, published by the University Public Relations Office for alumni and friends of the University.

19.3.1 Sir George Williams Association of Alumni

The Association was begun informally by the "Guinea Pig Class" of 1937, the first to receive degrees from what was first a College and then a University.

The Association was officially incorporated as a non-profit organization on September 21, 1957.

The aims and objectives contained in the charter are: to preserve the fellowship of graduates of Sir George Williams; to preserve, extend and promote the interests of the University; and to assist in the furthering of student welfare.

The Association is guided by a 30-member Board of Directors elected from graduates of the University.

There is a special classification called *"Active Members"* consisting of alumni who make a financial contribution in the current year. Their support entitles them to free library privileges, special social activities such as invitations to the annual Rector's Reception, invitations to concerts, art exhibitions, etc.

The Association's office is located at 2150 Bishop Street. (879-5898).

19.3.2 Loyola of Montreal Alumni Association

The Association, dedicated to promoting the welfare of its members, provides a vehicle through which former students of the Loyola Campus of the University may maintain interest in and express support for their alma mater. It seeks to foster continuing contacts among former students and to conduct projects, organize events, and do other things necessary and useful for the University.

Each year, the Association sponsors a golf tournament, an oyster party, the Sports Hall of Fame, and other social, cultural and sports activities. The Association honours its past presidents every year with a gala dinner. It arranges for an exchange programme between students and alumni in business and the professions. The Association also sponsors the selection and presentation of the Loyola Medal to outstanding Canadians.

The Association's office is located in the Loyola Administration Building, 7141 Sherbrooke Street West. (482-0320).

UNIVERSITÉ CONCORDIA UNIVERSITY
Centre de l'éducation permanente Centre for continuing education
CORDIA

20 Centre for Continuing Education

20.1 CERTIFICATE PROGRAMMES IN BUSINESS AND ADMINISTRATION

20.2 CONTINUING EDUCATION LANGUAGE INSTITUTE

20.3 APPLIED ARTS

20.4 EDUCATIONAL TRAVEL PROGRAMME

20.5 SEMINARS AND WORKSHOPS

20.6 INDUSTRIAL TRAINING WORKSHOPS

20 Centre for Continuing Education

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As part of its commitment to the life-long pursuit of education, Concordia University, through its Centre for Continuing Education, sets out to meet the learning needs and interests of the vast number of adult learners who seek educational activities outside the regular degree programmes of the University. Courses offered by the Centre are designated as "non-credit", but only in the sense that they may not be counted towards any of the degree or certificate programmes offered by the Faculties of the University.

Most of the Centre's courses are part of practical programmes leading to certificates of achievement awarded by the Centre to those who successfully complete the required work. A wide variety of such programmes and courses is offered, and these are reviewed and supplemented on a regular basis to ensure that they satisfy the changing needs of the community.

20.1 CERTIFICATE PROGRAMMES IN BUSINESS AND ADMINISTRATION

Hospitality Management Programme

This practical programme is available to individuals who wish to receive training in the special skills required to manage hotels, restaurants, and institutional and commissary food-service establishments. Each course is made up of 13 weekly two-hour classroom sessions given in the evenings. Ten courses must be successfully completed to obtain the Certificate of Hospitality Management.

Management Practices Programme

This series of courses in management and administrative subjects is offered to individuals in the business community who wish to investigate or update their skills in selected fields. Each course is made up of 8 weekly two-hour classroom sessions which are given in the evenings. Six of the courses must be successfully completed to obtain the Certificate in Management Practices.

Tourism Programme

These courses are designed to train students for responsible jobs in tourism. They are intended either for those already employed in the industry or for those considering it as a career. Both courses in the programme must be successfully completed to obtain the Certificate.

Security Administration Programme

This programme is open to individuals who wish to receive training for responsible positions in security operations at industrial sites, financial institutions, retail shopping and recreational complexes, hotels, educational and other public institutions. Courses are offered in the evenings. Four courses make up the programme. Each course is made up of 13 weekly two-hour classroom sessions.

Journalism, Advertising and Public Relations Programme

This special programme in public communication techniques is designed for individuals interested in developing skills in the fields of journalism, advertising, or public relations.

All courses are taught by practitioners who are active in the media or related fields. Each course is made up of 12 weekly two-hour sessions. Five of the courses must be successfully completed to obtain the Certificate.

Investment Management and Tax Planning Programme

This practical programme offers individuals the opportunity to learn about investments and taxes, particularly the analytical and strategic skills necessary for the profitable management of the personal or corporate portfolio.

The programme is based on a flexible module system. Twenty-five self-contained modules of four classroom hours each provide a comprehensive knowledge of investment in securities, in real estate, and in tax problems related to investment management.

A participant may register for all modules, or for one or more modules. Upon the successful completion of ten modules in the core section, the participant will be eligible for the Certificate in Portfolio and Investment Management.

20.2 CONTINUING EDUCATION LANGUAGE INSTITUTE

The Continuing Education Language Institute is a division of the Centre for Continuing Education established to meet the need for year-round intensive language programmes in English and French. The courses are designed to meet the needs of adult students seeking language training for professional, social and academic purposes. Both day and evening courses are offered.

Students may choose one of several programmes ranging in intensity from six to twenty-four hours a week. Class size is limited to ensure maximum student/instructor contact.

Members of the staff of the Institute have specialist training and experience in second language teaching.

The English Language Programme

There are three distinct English language programmes offered on a regular year-round-basis - the Intensive (6 levels), the morning - Semi-Intensive (3 levels), and the evening (6 levels).

The French Language Programme

Courses at all levels are offered in the French language and are designed around adult life situations and use a vocabulary for this purpose.

For students who meet the necessary requirements, the following specific courses are offered:

- a business course for those who already possess a working knowledge of French.
- a translation course (business terminology) from English into French.
- a comprehensive course designed specifically for hospital personnel.

20.3 APPLIED ARTS

Fashion Designing and Pattern Making

This programme is offered to train students in a professional manner for the garment industry. A certificate will be granted upon successful completion of ten courses.

Each course is made up of 12 three-hour classroom sessions given once a week in the evening.

Apparel Management

This programme is offered to prepare students for production management in the apparel industry. A certificate in Apparel Management will be granted upon the successful completion of eight courses.

Each course is made up of 13 two-hour classroom sessions given once a week in the evening.

Textile Design

The textile design courses are offered to enable students to create patterns of designs that are applied to the surfaces of fabrics and other materials. These courses should enable students to acquire the knowledge necessary for career advancement and continuing study.

Each course is made up of 13 three-hour classroom sessions given once a week in the evening.

Television and Radio Production Programme

The introductory course is for the beginner who would like to learn the basics of production: the use of portapaks and one-camera mobiles; scripting and story-boarding; directing and performing for T.V.

The intermediate course is a follow-up to the above course with an emphasis on the quality of the finished tape and the development of critical viewing faculties.

Each course is made up of 12 three-hour classroom sessions given once a week in the evening.

Studio and Production Techniques for Radio is an introductory course for those who wish to pursue a career in radio announcing or audio production. It should also benefit anyone who wishes to improve speech techniques. Students will work in teams to produce and record short radio programmes or business meetings.

Course is 12 two-hour sessions.

Practical Photography

This programme consists of six-week and twelve-week courses at various levels, ranging from the Basics of Camera operation or darkroom procedures to courses providing an opportunity for those with more experience to refine and expand their photographic skills and vision. They combine lectures with hands-on participation.

Visual Arts

The Visual Arts Programme offers interested students the opportunity to work with professional artists of the Montreal community in drawing and in painting.

Museum Education in the Nineteenth Century

These courses will research art objects located in the Montreal Museum of Fine Arts. Students who wish to become animators at the Museum as well as those interested in museum research should benefit from the basic knowledge gained of the permanent collection.

Courses are 12 two-hour sessions.

Music

Courses are offered in the field of music theory and music appreciation as well as private instruction (non-credit) on all instruments and voice.

Interest courses are also available.

20.4 EDUCATIONAL TRAVEL WORKSHOPS

The Centre for Continuing Education, in cooperation with the academic departments of the University, organizes a number of travel programmes. Some of the courses, which are generally scheduled between April and August, are regular Concordia offerings

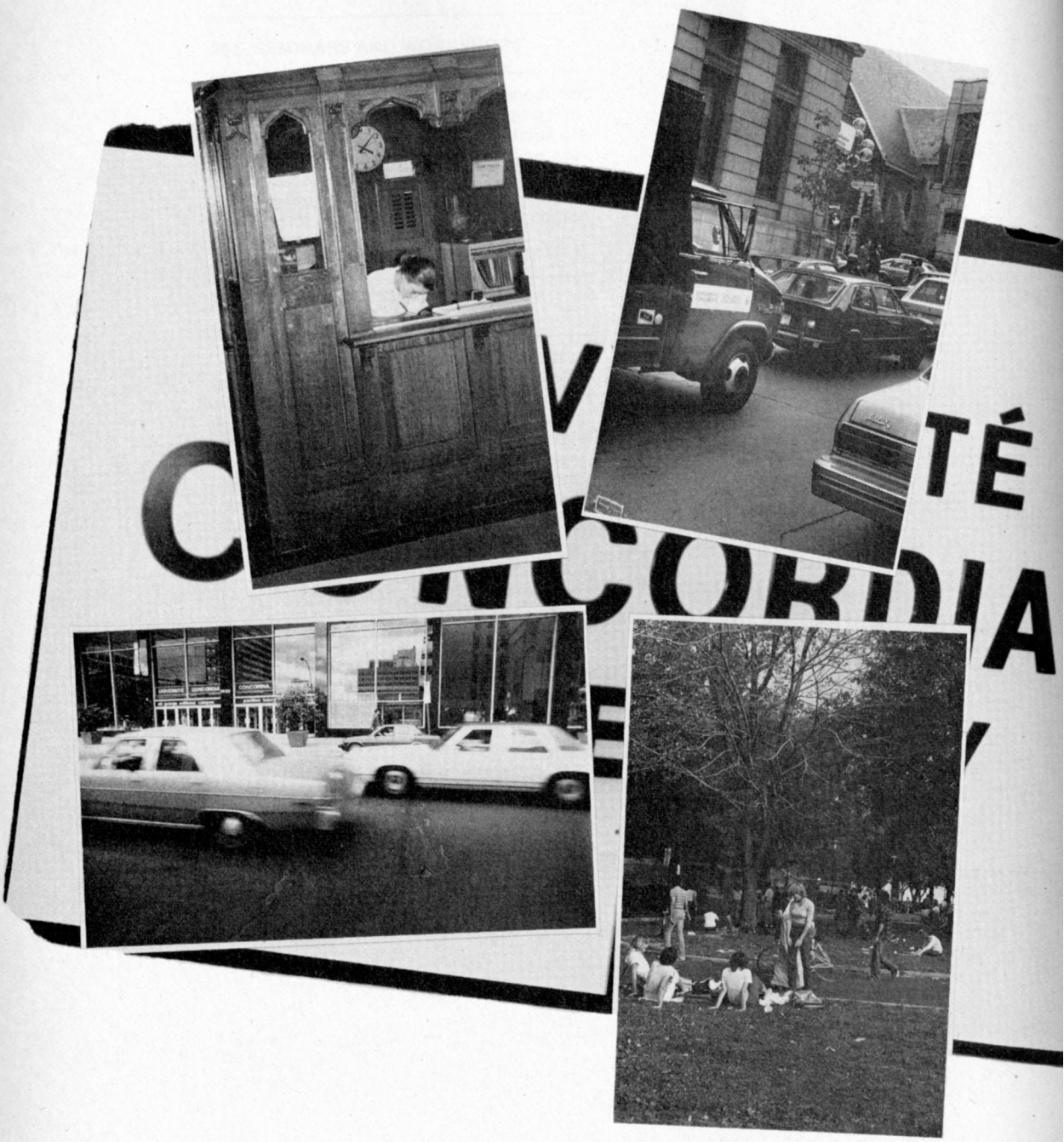
under the academic direction of a faculty member, and carry academic credit. The physical and personnel resources of academic, business and social institutions in other countries enhance the academic and cultural components of the courses.

20.5 SEMINARS AND WORKSHOPS

A number of seminars and workshops are scheduled by the Centre for Continuing Education. These seminars and workshops are sponsored with the cooperation of an academic department or faculty and are aimed at meeting the needs of the community in topics that are not normally a part of regular degree programmes.

20.6 INDUSTRIAL TRAINING WORKSHOPS

The Industrial Training Workshops aim at people whose experience within the work setting requires them to teach others. Both knowledge and the techniques of curriculum development and course delivery are essential to effective teaching. Quite often, however, industrial trainers have not had the opportunity to develop teaching skills. These workshops are intended to help such people.


CONCORDIA
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21 Off-Campus Courses and Programmes of Interest to Teachers

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21.1 Off-Campus Credit Courses

21.1.1 INTRODUCTION

Concordia University offers credit courses off campus during the Regular (Fall/Winter) and Summer sessions. The courses are designed to be of interest to persons who find it inconvenient, for whatever reason, to attend classes on either campus. The University is prepared to offer courses wherever there is a sufficient demand, provided that qualified instructors are available. Off-campus courses have the same credit value as on-campus courses.

Last year, courses were given in Pointe Claire, Laval, Cowansville, St. Hubert, and at various cultural centres (e.g. Saidye Bronfman Centre) throughout the Island of Montreal. Courses were offered from the Faculties of Arts and Science, Commerce and Administration and Fine Arts.

Persons interested in obtaining further information about programmes, or in having coures offered at a particular location, should contact the office of the:

Off-Campus Education
7141 Sherbrooke St. W.,
Montreal, Quebec
H4B 1R6
482-0320, Local 327

21.1.2 REGISTRATION FOR OFF-CAMPUS CREDIT COURSES

It should be noted that registration in a course does not constitute admission to the University. While registration as an Independent student is possible, those registering for courses are encouraged to apply for admission to the University. To obtain information about registration for off-campus courses, call 482-0320 (Local 327), and request the office for Off-Campus Education.

21.2 Programmes of Interest to Teachers

Included in this section is a list of programmes which may be of particular interest to teachers. Concordia does not have a Faculty of Education. Courses and programmes for teachers are offered in various faculties. Potential students are advised to consult the relevant departments of the University.

21.2.1 CERTIFICATE PROGRAMMES

1. Certificate in Art Education for Teachers (Elementary school level) (30 credits). See §81.60**
2. Certificate in Creative Drama and Theatre Arts, Elementary Option, Secondary Option (30 credits). See §81.150**
3. Certificate in Education (for practising teachers) (30 credits). See §31.090*
4. Certificate in Family Life Education (30 credits). See §31.01 0
5. Certificate in the History of Quebec (30 credits). See §31.16 0
6. Certificate in Judaic Studies (30 credits). See §31.270
7. Certificate in Library Studies (60 credits). See §31.190
8. Certificate in Mathematics for Teachers (Elementary School Level and Junior Secondary School Level) (30 credits). See §31.200
9. Certificate in the Teaching of English as a Second Language, Sequences I and II (30 credits). See §31.320**
10. Certificate in the Teaching of Science (Elementary School Level) (30 credits). See §31.290

Notes:

1. Certificate programmes are made up of undergraduate courses.
2. Most certificate programmes have very specific admission requirements. Students who wish to obtain a certificate are advised not to take the courses as Independent students unless they are sure that they are admissible to the programme.

21.2.2 BACHELOR'S DEGREE PROGRAMMES

1. Bachelor of Arts (Specialization in Early Childhood Education) (90 credits).See §31.090*
2. Bachelor of Education (Teaching of English as a Second Language) (90 credits). See §31.320*
3. Bachelor of Fine Arts (Specialization in Art Education) (90 credits). See §81.60

21.2.3 DIPLOMA PROGRAMMES (SEE GRADUATE CALENDAR)

1. Diploma in Art Education (36 credits).*
2. Diploma in Communication Studies (42 credits).
3. Diploma in Early Childhood Education (minimum 33 credits).**
4. Diploma in English (32 credits).
5. Diploma in Institutional Administration (33 credits).
6. Diploma in Instructional Technology (33 credits).
7. Diploma in Library Studies (36 credits).
8. Diploma in Sports Administration (33 credits).
9. Diploma in the Teaching of Mathematics (32 credits).
10. Diploma in Theological, Religious and Ethical Studies (33 credits).

21.2.4 MASTER'S DEGREE PROGRAMMES (SEE GRADUATE CALENDAR)

1. Master of Arts in Applied Linguistics (45 credits).
2. Master of Arts in Art Education (45 credits).
3. Master of Science in Biology (Teaching Option) (45 credits).
4. Master of Science in Chemistry (Teaching Option) (45 credits).
5. Master of Arts in Educational Studies (45 credits).
6. Master of Arts in Educational Technology (90 credits).
7. Master of Arts in English (45 credits).
8. Master of Fine Arts (90 credits).
9. Master of Fine Arts, Art History (60 credits).
10. Master of Science in Physics (Option B) (45 credits).
11. Master in the Teaching of Mathematics (M.T.M.) (45 credits).

21.2.5 DOCTORAL PROGRAMME

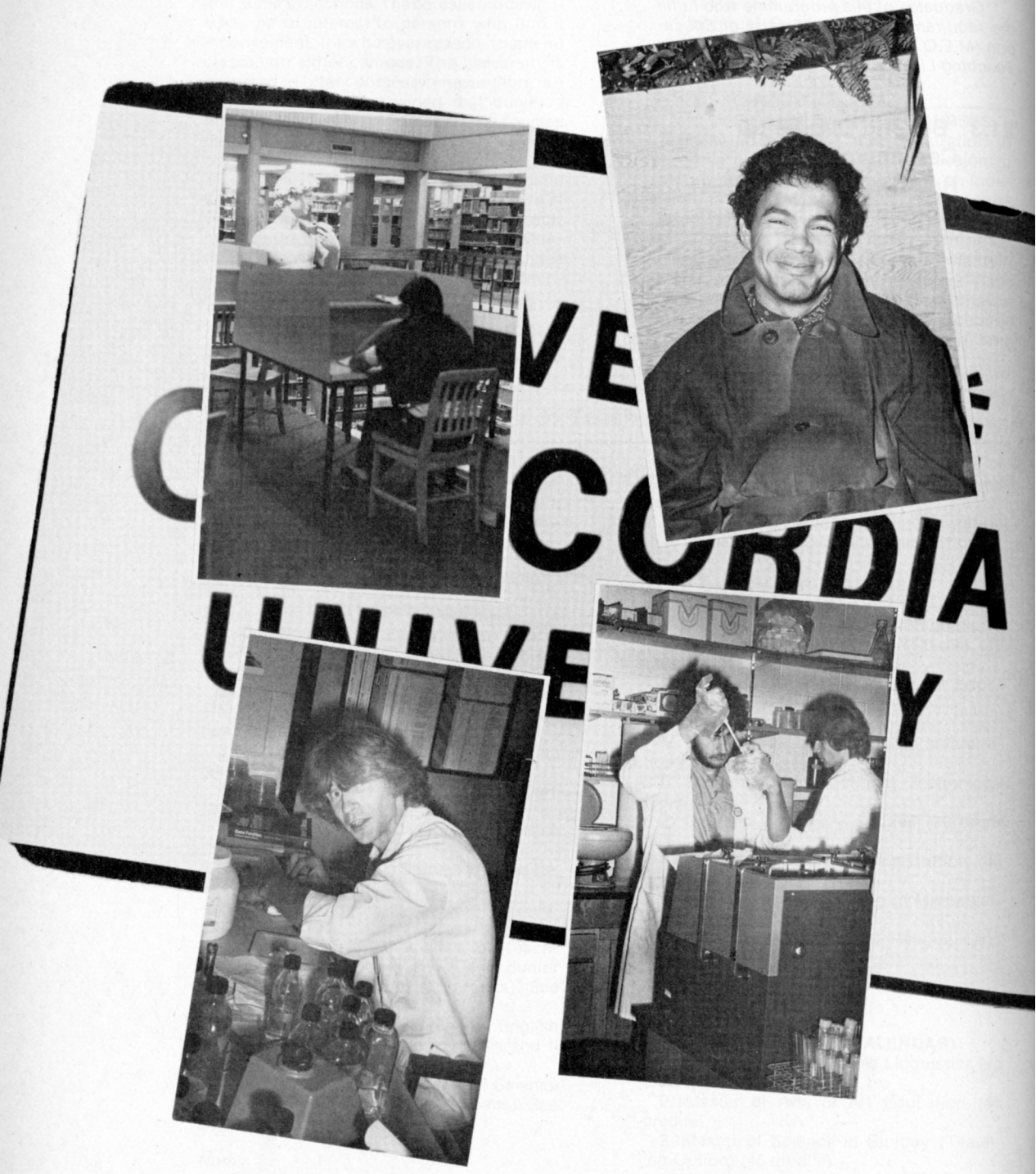
Doctor of Philosophy, Art Education (90 credits).

**This is an initial programme of Teacher Training.*

***Graduates of this programme who fulfill the requirements of the Ministry of Education (M.E.Q.) will be entitled to a Specialist's Teaching Licence from the M.E.Q.*

21.3 "Beyond Degree (or Certificate) Requirements" Notations on Record

When a student so desires, courses previously completed and which were not counted towards his or her degree (or certificate) may be identified on the record as "Beyond Degree (or Certificate) Requirements."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31.000 Faculty of Arts and Science

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31.001 Faculty of Arts and Science

Divisional Deans and Provost
D. TADDEO *(Division I)*
J.S. CHAIKELSON *(Division II)*
R. ROY *(Division III)*

M. SINGER, *Provost*

R.C. COYTE *(Associate Dean, Division II)*
J. DRYSDALE *(Assistant Dean, Curriculum)*
T. GRAY *(Assistant Provost, Division IV)*
C. NISH *(Assistant Dean, Advertising and Public Relations)*
R.H. PALLEN *(Associate Dean, Division III)*
L. VAN TOCH *(Assistant Dean, Student Affairs)*
V. ZEMAN *(Assistant Dean, Division I)*

M. OSBORNE *(Secretary, Arts and Science Faculty Council)*

STRUCTURE

The Faculty of Arts and Science, comprised of the former Loyola Faculty of Arts and Science, the former Sir George Williams Faculty of Arts and the former Sir George Williams Faculty of Science, was brought into being on 1 July 1977.

For administrative purposes, the Faculty is structured in four Divisions comprising departments, programmes, and centres, colleges, institutes and schools. Three of the divisions are each headed by a Dean while a fourth (Division IV) is headed by the Provost.

The departments and other units of which the Faculty is made up are placed within the divisions as follows:

Division I:
Classics
Communication Studies
English
Études Françaises
History
Journalism
Library Studies
Modern Languages and Linguistics
Philosophy
Teaching of English as a Second Language
Theological Studies

Division II:
Applied Social Science
Economics
Education
Geography
Political Science
Psychology
Religion
Sociology and Anthropology

Division III:
Biology
Chemistry
Exercise Science
Geology
Health Education
Mathematics
Physics
Recreation and Leisure Studies

Division IV:

Colleges
Centre for Mature Students
Institute for Co-Operative Education
Liberal Arts College
Lonergan University College
School of Community and Public Affairs
Science College
Simone de Beauvoir Institute

Programmes
Canadian Studies
Interdisciplinary Studies
Russian Studies
Science and Human Affairs
Urban Studies
Women's Studies

PRINCIPLES OF EDUCATION

The Faculty of Arts and Science is studying the programmes of instruction that it offers, and where appropriate is modifying them, with the objective of ensuring that all embody certain principles of education. These principles, seven in number, were deliberately enunciated by the Faculty in the academic year 1980-81 as follows:

1. The Faculty endorses the concept of specialization in university education and does so in the conviction that specialized and intensive knowledge in a particular discipline or field is necessary to the development of an educated person. While the programmes that this Faculty offers are many and various, and the capacities that they form are as different one from another as the students who pursue them, they should all help prepare graduates for living as informed individuals, fulfilling their role in society, not merely in the period when society remains more or less as it was when they were engaged in formal study but also in unpredictable future time. The skills and confidence derived from the experience of being led by the spirit of inquiry and of knowing what knowledge is, are part of the contribution of university education to the maintenance of an essential sense of self.

2. That part of any degree programme which is devoted to specialized study must be structured in such a way that it gives a coherent view of the particular discipline or field. It should be concerned not only to teach appropriate skills and items of knowledge but

also to show students, explicitly and implicitly, the nature of the subject, its methods of study and the sort of questions to which it addresses itself at its more advanced levels. The programme should be structured to achieve these goals economically and efficiently.

3. The component of specialized study should not constitute the whole of any programme of concentration. A programme should not consist of study in one discipline only but require a minimum of study in some other discipline or disciplines. The desired effect of this requirement is to create a context for specialized study in which the strengths and also the limitations of the area of special study become more apparent.

4. The flexibility and mobility that many graduates require in the society they will enter derive in part from the skills and knowledge that they acquire in the university that go beyond the boundaries of their concentration programmes. Adaptability may be for many graduates a condition of success in their careers. The development of interests outside a single concentration can also enrich and sustain their personal lives. Hence, the total bachelor-degree programme should build upon and significantly extend the broad academic experience provided by the schools and colleges that students attend before entering university. In the context of our modern society this necessitates exposure to both the scientific method and humanistic approaches.

5. University education is concerned not only with the transmission of culture, but also with its extension, criticism and evaluation. All of these processes rely on mastery of communication. Ability to express oneself in writing (and in speech) should be fostered in all courses and degree programmes. Further, graduates will increasingly need to be familiar with, and to use, modern methods of communication. Programmes should develop an awareness of the impact of advances in communications and computer technology on the learning, work, and leisure environments.

6. Education must foster intellectual independence in a free and open spirit so that students may develop their critical faculties to their fullest. Degree programmes should never be so structured as to preclude the student's free choice of concentration and of options within their concentration or outside of it.

To assist students in making reasoned choices, the university should provide an advising structure which respects and accommodates decisions made by students about their programmes.

7. A degree programme need not realize all the *desiderata* implied in the foregoing; it must not, however, restrict itself to only one. A programme should have as objective the realization of a set of "local maxima", each corresponding to one of the principles, rather than the attainment of one "absolute maximum" corresponding to only one of the principles. For this reason, and because each programme has special constraints, compromise is inevitable. What matters is that some of the qualities of sound, contemporary education as articulated here be inherent in each programme, and that it be upon their inclusion that the absence of others be justified.

31.002 Programmes and Admission Requirements

General admission requirements are listed in §13.

1. Specific requirements for admission to the various programmes leading to the degrees of Bachelor of Arts, Bachelor of Education, and Bachelor of Science, and to certificates, are set out in the first column of the following listings. They refer to the table of CEGEP pre-Arts and pre-Science profiles defined below. Students lacking one or more of these prerequisites may be admitted, but must include the designated prerequisites among the courses followed prior to entry into the second year of their undergraduate programme. In certain cases, the prerequisites must be taken in addition to the undergraduate programme.

Profile	Requirements
0.00	Diploma of Collegial Studies
.34	To be a Registered Nurse, with authorization to practise and at least one year's experience
.72	DEC or equivalent and appropriate teaching licence.
1.4	Mathematics 103, 203 Physics 101, 201, 301; or 102, 202, 302 Chemistry 101, 201 Biology 301 or 921
10.1	Mathematics 337; or 103, 307 Biology 301, 401; or 921 Psychology 102
10.2	Mathematics 103, 307
10.3	Mathematics 337
10.4	Mathematics 101-77, 103, 105, 203
10.5	To have reached in the language that will be studied a level equivalent to that of 2 CEGEP courses. If these courses have not been available in the CEGEP attended, the University may make up for them.
10.9	Mathematics 103, 203 Physics 101, 201, 301-78 Chemistry 101, 201 Biology 301
10.10	Mathematics 103, 203, 105 Physics 101, 201, 301-78 Chemistry 101, 201 Biology 301
10.12	Mathematics 103, 105, 203
A:	Interview
C:	Knowledge of English
D:	Knowledge of French
K:	Submission of a portfolio of representative work
N:	Placement test
Q:	Competency in written and oral English, to be determined by a proficiency test, the results of which may lead to the rejection of the candidate or the requirement of additional university courses.

X: No specific requirements, but students should be prepared for entry into the disciplines of main interest. (This code does not appear in 'Accueil '83' and is one invented by the University.)

Programme titles refer to honours, specializations, majors, and minor components where these exist. Full information about the programmes offered under each title (including combinations with programmes in other disciplines) is to be found in the section of the calendar specified in the third column below. Certificate programmes, indexed in the same way, are listed in the last section, after those devoted to the programmes that lead to degrees in Arts, Science, and Education.

Bachelor of Arts, Bachelor of Science, Bachelor of Education

Profile	Programme	Calendar Section
0.00	Adult Education	31.090.2
	Andragogy (see Education: Adult Education)	
0.00	Anthropology	31.310
	Applied Mathematics (see Mathematics)	
0.00	Applied Social Science	31.010
0.00	Athletic Training	31.120
10.9	Biochemistry	31.050
10.9	Biochemistry (with Medicinal Chemistry Component)	31.050
10.9	Biological Sciences	31.030
	Biology (Certificate in Scientific Measurement Biology option, see Physics)	
	Botany (see Biological Sciences)	
0.00A,K,Q	Broadcast Journalism	31.070, 31.180
0.00	Canadian Studies	31.040
	Cell and Molecular Biology (see Biological Sciences)	
10.9	Chemistry	31.050
10.9	Chemistry (Analytical)	31.050
	Chemistry (Certificate in Scientific Measurement Chemistry option, see Physics)	
0.00	Child Studies	31.090
	Classical Philology (see Classics)	
0.00	Classics	31.060
0.00A,K	Communication Studies	31.070
0.00A,K,Q	Communication and Journalism	31.070, 31.180
.34	Community Nursing	31.150
0.00	Community Service	31.150
0.00K	Creative Writing (see English, Creative Writing)	31.100
0.00A	Early Childhood Education	31.090
	Ecology (see Biological Sciences)	
0.00	Economics	31.080
0.00	Education	31.090
0.00	Education: Adult Education	31.090.2
	Education (see Child Studies; Early Childhood Education; Teaching of English as a Second Language)	
0.00	Education and Philosophy	31.090, 31.220
0.00	English	31.100
0.00K	English: Creative Writing	31.100
0.00	English Dramatic Literature	31.100
0.00	English and French	31.100, 31.110
0.00	English and History	31.100, 31.160
0.00	English Language	31.100
0.00	English Literature	31.100
10.5	English and Modern Languages	31.100, 31.210
0.00	English and Philosophy	31.100, 31.220
0.00	English and Religion	31.100, 31.270
10.9	Exercise Science	31.120
10.9	Exercise Science (Sports Science Option, Therapeutic Activity Option, Pre-Research Option, Bio-Chemistry Option)	31.120
0.00	Family Life Education	31.010
0.00	French	31.110
0.00	French and English	31.100, 31.110
0.00	French/English Translation	31.110
0.00	French and History	31.110, 31.160
0.00	French Language	31.110
0.00	French Literature (Quebec)	31.110
0.00	French Literature	31.110
10.5	French and Modern Languages	31.110, 31.210
0.00	Geography (BA)—all options	31.130
10.9	Geography (BSc)—all options	31.130
0.00	Geography—Human (includes Cultural, Economic, Historical, Urban)	31.130

0.00	Geography—Man-Environment Relationships	31.130
0.00	Geography—Physical	31.130
10.9	Geology	31.140
10.9	Geology/Physics	31.140
10.9	Geology/Chemistry	31.140
10.9	Geology (with Minor in Ecology)	31.140
10.5	German	31.210
	Greek (Ancient—see Classics)	
0.00	Health Education	31.150
10.5	Hebrew	31.210
0.00	History	31.160
0.00	History (Certificate in the History of Québec)	31.160
0.00	History and English	31.160, 31.100
0.00	History and French	31.160, 31.110
0.00	History and Philosophy	31.160, 31.220
	History and Religion (see Religion and History)	
Appropriate	Interdisciplinary Studies—Self-Elected Specialization	31.170
10.5	Italian	31.210
0.00A,Q	Journalism	31.180
0.00	Judaic Studies	31.270
	Latin (see Classics)	
0.00	Language and Translation (French and English)	31.110
0.00	Library Studies	31.190
0.00	Linguistics	31.210
10.4	Mathematics (BA)	31.200
10.10	Mathematics (BSc)	31.200
10.4	Mathematics (Actuarial—BA)	31.200
10.10	Mathematics (Actuarial—BSc)	31.200
10.4	Mathematics (Applied—BA)	31.200
10.10	Mathematics (Applied—BSc)	31.200
0.00	Mathematics (Minor for Arts Students)	31.200
10.5	Modern Languages, one of the, and English	31.210, 31.100
10.5	Modern Languages, one of the, and French	31.210, 31.110
0.00	Outdoor Education	31.120
0.00	Philosophy	31.220
0.00	Philosophy and Education	31.220, 31.090
0.00	Philosophy and English	31.220, 31.100
0.00	Philosophy and History	31.220, 31.160
0.00	Philosophy and Religion	31.220, 31.270
0.00	Philosophy and Sociology	31.220, 31.310
10.10	Physics	31.230
	Physics (Theoretical and Experimental options—see Physics)	
10.10	Physics (Certificate in Scientific Measurement—Biology, Chemistry and Physics Options)	31.230
10.10	Physics/Marketing	31.230
0.00	Political Philosophy	31.220
0.00	Political Science	31.240
10.1	Psychology (BA)	31.250
10.9	Psychology (BSc)	31.250
10.9	Psychology (Psychobiology Option)	31.250
10.1	Recreation and Leisure Studies and Psychology	31.260
0.00	Recreation and Leisure Studies and Sociology	31.260
0.00	Religion	31.270
	Religion—Judaic Studies (see Judaic Studies)	
0.00	Religion and English	31.270, 31.100
0.00	Religion and History	31.270, 31.160
0.00	Religion and Philosophy	31.270, 31.220
0.00	Religion and Sociology	31.270, 31.310
10.9	Resource Analysis and Land Use	31.140
10.5	Russian	31.210
0.00	Russian Studies	31.280
0.00	Science and Human Affairs	31.300
10.10	Scientific Measurement (Biology Option, Chemistry Option, Physics Option)	31.230
Appropriate	Self-Elected Specialization Programme	31.170
0.00	Social Welfare	31.010
0.00	Sociology	31.310
0.00	Sociology and Philosophy	31.310, 31.220
0.00	Sociology and Religion	31.310, 31.270
10.5	Spanish	31.210
10.4	Statistics (BA)	31.200
10.10	Statistics (BSc)	31.200
0.00	Teaching of English as a Second Language (Elementary, Secondary, and Adult options)	31.320
0.00	Theological Studies	31.330
0.00	Urban Studies	31.340
0.00A	Western Society and Culture	31.520

NOTE: The Calendar Sections listed in the third column contain details, where applicable, of professional qualifications required for admission.

2. Mature entrants are advised to consult §14 of this calendar, and in particular 14.3.1.

3. Students admitted to BA and BEd Extended Credit Programmes are required to complete 120 credits for the degree (i.e., 30 additional credits) and must include the following 30 credits in the 120:

6	credits in English (language or Literature)
24	elective credits, of which a maximum of 12 may be outside the Faculty of Arts and Science. Certain departments in the Faculty have specific requirements. Students intending to follow programmes of concentration within these departments must include the specified components as part of their programme.

BA Geography (Physical): 6 credits in Mathematics

BA Mathematics: 9 credits in Mathematics - C203[3], C204[3], C205[3]*

**Students not having MATH C202[3], or the equivalent must take it in place of one of their elective courses.*

BA Psychology: 6 credits in Mathematics
3 credits in Biology
6 credits in Psychology

Students admitted to BSc Extended Credit Programmes are required to complete 120 credits for the BSc degree (i.e., 30 additional credits) and must include the following 30 credits in the 120:

6	credits in Chemistry C205[3], C206[3]
6	credits in Mathematics C203[3], C205[3]*
12	credits in Physics C204[3], C205[3], C206[3], C224[1], C225[1], C226[1]
3	credits in Biology C201[3]
3	credits in Mathematics C204[3] for students intending to enter programmes of concentration in Mathematics or Physics;** or electives for all other students

**Students not having MATH C201[3], or the equivalent, must take it in place of one of their elective courses.*

***Students not having MATH C202[3], or the equivalent, must take it in place of one of their elective courses.*

NOTE: Students in the BA, BEd or BSc Extended Credit Programme may not count towards their programmes of concentration courses taken as part of the first 30 credits.

31.003 Degree Requirements

Up to and including the academic year 1973-74, degree programmes were expressed in terms of courses, with one credit being applied to a "full course" (normally, one extending over two terms) and one half-credit being applied to a "half-course" (which was normally completed in one term).

In 1974-75, in accordance with the recommendations of the Council of Universities of Quebec, the credit base was modified to take into account the total activity of the student. A student preparing for the degree of Bachelor of Arts, Bachelor of Education, or Bachelor of Science takes a minimum of 90 credits. Each credit represents, for the average student, a minimum of 45 hours spread across lectures, conferences, tutorials, laboratories, studio or practice periods, tests, examinations, and personal work.

Since the CEGEP programmes are designed to give all students the opportunity to explore different fields and thus acquire a broad general basis for further study, the undergraduate programmes in the Faculty of Arts and Science require of students some degree of concentration in specific areas. Detailed statements about these programmes are made under the appropriate disciplinary headings in the sections of the calendar that follow this general account of degree requirements. They represent four main forms of concentration: the *Minor*, the *Major*, the *Specialization*, and *Honours;* and a fifth form, the *Certificate*. The University's formal definitions of these kinds of programmes are set out in section 16.2; for the convenience of students in Arts and Science, those definitions as they are construed in the Faculty are briefly repeated below.

The *Minor* is a programme consisting of a *minimum* of 24 credits in a single discipline and professing to give a basic introduction to the methodology and key concepts of that discipline. A Minor cannot in and by itself provide the concentration required of a candidate for a degree and is therefore always taken in combination with another programme.

The *Major* consists of a *minimum* of 36 credits taken in an approved sequence of courses. Normally within a major programme not more than 36 credits are required from a single discipline or department. In certain programmes, however, additional credits are required in cognate disciplines and departments. The major provides a solid grounding in the academic knowledge comprehended within the field of concentration. To enter and remain in it, a student normally does not have to meet a special performance requirement; see, however, programmes in Library Studies §31.190, Recreation and Leisure Studies §31.260 and Western Society and Culture §31.520.

The *Specialization* consists of a *minimum* of 60 credits, normally not more than 54 credits of which are mandated from a single

discipline or department. Like an honours programme, it provides a compehensive education in the field of concentration, but to enter and remain in it, a student normally does not have to meet a special performance requirement (see, however, programmes in Early Childhood Education §31.090, French/English Translation §31.110, Interdisciplinary Studies: Individually Structured Programme §31.170, Recreation and Leisure Studies §31.260, and the Co-Operative Institute §31.515). Students interested in subsequent "classification" by the Provincial government may be advised to follow a Specialization or an Honours programme.

The *Honours* programme consists of a *minimum* of 60 credits taken in an approved sequence of courses. Normally within an honours programme not more than 60 credits are mandated from a single discipline or department. Additional credits may be required in cognate disciplines and departments. Superior academic performance is required for admission to and continuation in the honours programme, the precise level of such performance being determined by Senate. See §16.2.4 and *Faculty Honours Regulations* set out below for matters governing Honours programmes at Concordia. An Honours degree or equivalent, because it testifies to a student's comprehensive education in a particular field, intellectual commitment to that field, and achievement of a high level of academic performance, has traditionally been required of entrants to postgraduate programmes.

Graduation requirements

1. A candidate for graduation must have successfully completed a programme of concentration in the form of an *Honours, Specialization* or *Major* programme.

2. A candidate for graduation must have successfully completed at least 24 credits outside the single discipline or department from which the degree concentration has been chosen. Within every block of 30 credits taken towards the degree, a student will normally choose no more than 24 credits from any one discipline or department.

3. A candidate for graduation must have successfully completed at least 18 credits from courses in Arts and Science in every block of 30 credits taken towards the degree.

4. A candidate for the degree of Bachelor of Arts must have qualified for admission to, and successfully completed, a programme leading to that degree. Specific admission requirements, expressed as CEGEP pre-Arts profiles, are given in §31.002. Students wishing to transfer out of one degree programme into another must satisfy the admission requirements of the programme they seek to enter.

5. A candidate for the degree of Bachelor of Science must have qualified for admission to, and successfully completed, a programme leading to that degree. Specific admission requirements, expressed as CEGEP pre-Science profiles, are given in §31.002. Studen wishing to transfer out of one degree programme into another must satisfy the admission requirements of the programme they seek to enter.

6. A candidate for the degree of Bachelor of wishing Education must have qualified for admission to transfer out of one degree to, and successfully completed, the programme leading to that degree. The admission and degree requirements are set out in §31.320.

7. In general, the credits obtained for any course may not be used to satisfy the requirements of more than one programme. Students first registered in certain Certificate programmes may however apply credits obtained towards the Certificate to a degree programme.

8. Those students entering the University after September 1, 1978 as *Independent students* will be permitted to apply *no more* than 30 credits obtained as an Independent student towards any Arts and Science Faculty degree programme.

Supplemental Examinations
(Arts and Science)

Supplemental examinations shall be offered only where, as a condition for passing the course, it is required that a student pass the final examination regardless of its weighting; or where the final examination contributes 50% or more of the final grade.

A student failing a course which comprises entirely, or in part, a laboratory or similar practicum, may not be eligible to write a supplemental examination.

All courses which a student fails and for which there is no supplemental examination shall be graded FNS or R.

A failed student (see §16.3.5) may not write supplemental examinations.

Honours Programmes

The Faculty of Arts and Science has programmes leading to an Honours degree in certain selected fields. To enter an Honours programme, students apply to the Departmental Honours Committee (Adviser). The Departmental Honours Committee (Adviser) will accept students into Honours, subject to review by the Faculty Honours Committee. The Departmental Honours Committee (Adviser) will not normally accept students until they have obtained 30 credits at this University; students requiring fewer than 30 credits to graduate will not normally be accepted. The department will notify the Faculty Honours Committee of the acceptance. The Faculty Honours Committee will review the departmental acceptance and notify the department, the student, and the Records Office of the acceptance. In those cases where the Faculty Committee reverses a department's acceptance of a student into Honours, the department may appeal the Faculty Committee's ruling to the Arts and Science Faculty Council.

Honours Regulations (Faculty Regulations)
See also §16.2.4

In order to qualify for an Honours degree, a student must comply with the regulations set forth below.

1. An Honours student must meet the general degree requirements, as well as the specific requirements for an Honours degree. A student must complete a minimum of 30 credits in the courses from the Honours component of the programme at this University to receive a degree with Honours. In certain cases, these 30 credits may include some specific courses for which pro-tanto credit may not be awarded.

2. An Honours student must maintain an average of 'B', or 75%, in all courses in the Honours component of the programme; the minimum acceptable grade in any one of these courses is 'C', or 65%.

3. An Honours student must have a minimum average of 'B'-, or 71%, over courses in

the Honours component of the programme taken in each academic year. For part-time students, this will be calculated in eighteen-credit blocks.

4. In the courses outside the Honours component of the degree programme, an Honours student must have an average of no less than 'C', or 65%; the minimum acceptable grade in these courses is 'D', or 55%.

5. Students who are required to withdraw from the Honours programme may proceed in the corresponding Specialization or Major programme. Reinstatement in the Honours programme is possible only by appeal to the Faculty Honours Committee.

6. A student is allowed to qualify for only one Honours degree in either a single or combined Honours programme. A student may qualify for a Minor or Major programme in addition to an Honours programme. In general, the credits obtained for a particular course may be used to satisfy the requirements of only one programme.

Students may appeal their department's determination of their status or interpretation of requirements in the Honours programme. Such appeals should be addressed to the Chairman of the Faculty Honours Committee.

The Faculty Honours Committee receives and reviews departmental recommendations for acceptance into Honours programmes and graduation with Honours, and adjudicates disputes between students and departments concerning Honours programmes. Since the Faculty Honours Committee cannot hear appeals contesting its own judgements, students and departments who wish to appeal a decision of the Faculty Honours Committee should address this appeal to the Chairman of the Arts and Science Faculty Council.

These new regulations will apply to those students entering Honours programmes as of June 1, 1979. Students already in an Honours programme may continue under the old regulations established prior to June 1, 1979.

General Certificate in Arts and Science

The General Certificate in Arts and Science is intended primarily for part-time students who qualify for admission to first-cycle programmes, but who, at the time of registration, have not yet determined which programme would best serve their interests. In particular, it is designed to meet the needs of mature students who are unwilling or unable to make the long-term commitment involved in a regular or extended degree programme.

The Certificate requires successful completion of 30 credits. At least 24 of these credits must be chosen from courses offered by not more than three departments in the Faculty of Arts and Science.

Credits earned in the Certificate may not be counted towards the additional credits required in extended programmes.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

The General Certificate Programme in Arts and Science was first offered in the session commencing September 1978.

31.004 Discontinued Joint Programmes

Subject to approval of the departments concerned, students may take these or other specially designed programmes by being admitted to the Individually Structured Programme (see programme description and admission procedures in §31.170):

BA Joint Honours in Education and Philosophy
BA Joint Honours in English and History (1982-83)
BA Joint Honours in English and one of the Modern Languages (1982-83)
BA Joint Specialization in English and one of the Modern Languages (1982-83)
BA Joint Honours in English and Philosophy (1982-83)
BA Joint Honours in English and Religion (1982-83)
BA Joint Honours in French and History (1982-83)
BA Joint Honours in French and one of the Modern Languages (1982-83)
BA Joint Honours in History and Philosophy (1982-83)
BA Joint Honours in History and Religion (1982-83)
BA Joint Honours in Philosophy and Religion (1982-83)
BA Joint Honours in Philosophy and Sociology (1982-83)
BA Joint Honours in Religion and Sociology (1982-83)

Students wishing to have further information about these programmes should consult the departments concerned.

31.010 Applied Social Science

Chairman
S.I. CARTER, *Associate Professor*

Professor
J.F. GAVIN

Associate Professor
R. CAWLEY

Associate Professor of Applied Social Science and Psychology
D. MARKIEWICZ

Assistant Professors
K.B. CHAN
R. KASS
M. TAYLOR

Post-Retirement Professor
R.D. McDONALD

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

60 BA Specialization in Applied Social Science

NOTE: PSYCH C200^6 and SOCI C200^6 are prerequisites for the Psychology and Sociology courses included in the programme requirements. Students not exempted from PSYC C200^6 and SOCI C200^6 must enrol in these courses during their first year.

9 APSS C250^3, C355^3, C356^3
6 PSYC C310^3 and C315^3 taken concurrently over the year
12 Chosen from APSS C420^6, C431^6, C440^6, C450^6
6 APSS C490^6
27 Chosen from Lists A, B, C, and D. No more than 12 of the 24 credits may be chosen from APSS courses. At least six (6) credits must be chosen from List A and a further six (6) credits from one other List: B, C, or D.

List A: Social Theory
PSYC C333^6*, SOCI C220^3, C300^6, C325^3, C330^6, C370^6
List B: Understanding Individuals and Groups
APSS C413^6, C418^3, C419^3, C431^6, C450^6, C453^3, C456^3, C463^6; ADED C340^6; PSYC C283^3, C284^3, C336^6*, C379^3*; SOCI C260^6, C372^6
List C: Understanding Communities
APSS C440^6; GEOG C313^6, C331^6; SOCI C280^6, C353^3, C354^3, C382^3; URBS C280^6
List D: Understanding Organizations
APSS C420^6; PSYC C375^6; SOCI C340^6

**PSYC C310^3 and C315^3 are prerequisites for these courses.*

42 BA Major in Applied Social Science

NOTE: PSYC C200^6 and SOCI C200^6 are prerequisites for the Psychology and Sociology courses included in the programme requirements. Students not exempted from PSYC C200^6 and SOCI C200^6 are advised to enrol in these courses during their first year.

9 APSS C250^3, C355^3, C356^3
6 Chosen from APSS C420^6, C431^6, C440^6, C450^6
3 APSS C415^3
24 Chosen from Lists A, B, C, and D. No more than 12 of the 24 credits may be chosen from APSS courses. At least six (6) credits must be chosen from List A and a further six (6) credits from one other List: B, C, or D.

List A: Social Theory
PSYC C333^6*, SOCI C220^3, C300^6, C325^3, C330^6, C370^6
List B: Understanding Individuals and Groups
APSS C413^6, C418^3, C419^3, C431^6, C450^6, C453^3, C456^3, C463^6; ADED C340^6; PSYC C283^3, C284^3, C336^6*, C379^3*; SOCI C260^6, C372^6
List C: Understanding Communities
APSS C440^6; GEOG C313^6, C331^6; SOCI C280^6, C353^3, C354^3, C382^3; URBS C280^6
List D: Understanding Organizations
APSS C420^6; PSYC C375^6; SOCI C340^6

**PSYC C310^3 and C315^3 are prerequisites for these courses.*

60 BA Major in Social Welfare

6 ECON Credits
6 POLI C200^6 (or, for students with credit for or exemption from POLI C200, six credits in Political Science chosen in consultation with the programme adviser)
6 PSYCH elective credits
18 SOCI elective credits
12 ECON or POLI or PSYC elective credits
6 APSS C461^6
6 PSYC C317^6 or SOCI C210^6

NOTE: Only 18 of the 60 credits may be at the 200 level.

Certificate in Community Service

The Department of Applied Social Science offers a 30-credit programme consisting of 18 credits of applied courses and 12 credits of foundation courses chosen as electives, leading to the Concordia University Certificate in Community Service. Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Admission Requirements

General Admission Requirements are listed in §13.

Students should be actively involved in community service, either as staff or as volunteers or members of boards, committees, or councils of community organizations and agencies.

30	**Certificate in Community Service**
	(Courses must be taken in an approved sequence.)
	Year I
3	APSS C355[3]
	Years I or II
6	SOCI C353[3], C354[3]
6	Chosen from POLI C336[6], C360[6], SOCI C230[3], C382[3], C450[6]
15	APSS C431[6], C440[6], C442[6]

NOTE: Where required, students must take introductory courses when these are prerequisites for courses in the Certificate.

NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the programme, chosen in consultation with the Coordinator of the Certificate Programme.

Certificate in Family Life Education

The Department of Applied Social Science offers a 30-credit programme consisting of 18 credits of applied courses and 12 credits of foundation courses chosen as electives, leading to the Concordia University Certificate in Family Life Education. Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Admission Requirements

General Admission Requirements are listed in §13.

Students should be actively involved in family life education through a sponsoring community agency or organization; or interested in becoming more effective family life educators.

30	**Certificate in Family Life Education**
	(Courses must be taken in an approved sequence.)
	Year I
6	APSS C355[3], C454[3]
	Years I or II
12	Chosen from EDUC C392[3], PSYC C220[3], C221[3], C390[6], C391[3], SOCI C272[6], C370[6], C372[6]
	Year II
12	APSS C431[6], C453[3], C455[3]

NOTE: Where required, students must take introductory courses when these are prerequisites for courses in the Certificate.

NOTE: In the event that a student is awarded an exemption from a required course, it will be necessary for the student to replace that course with another relevant to the programme, chosen in consultation with the Coordinator of the Certificate programme.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

APPLIED SOCIAL SCIENCE C250
Introduction to Applied Social Science
(3 credits)

This course focuses on two questions: What is a social problem? What is a social response? The exploration of these questions is field-based, supported by cases, research of the literature, and reflection on the issues there discovered. Students will be introducted to the concepts and processes of social systems and social intervention. Lectures and laboratories.

NOTE: Students who have received credit for APSS C212 may not take this course for credits.

APPLIED SOCIAL SCIENCE C321
Introduction to Social Gerontology
(3 credits)

The course will deal with the problem of growing old in contemporary society, and with the biological, psychological, and sociological dimensions of the human aging processes. The course is also designed to identify the needs of the elderly in our community and to examine approaches to dealing with these needs.

APPLIED SOCIAL SCIENCE C355
Interpersonal Dynamics (3 credits)

To be an effective helper requires self-knowledge and development of insight into interpersonal relationships. This course focuses on developing awareness of oneself, sensitivity to others, and skills in relating to others. Much of the time will be spent in a small learning group, where opportunities will be provided to build relationships that encourage exploration of self and others, and mutual learning and growth. Other methods of learning will include journal keeping, term papers, and class discussions. Lectures and laboratories.

NOTE: Students who have received credit for APSS C351 may not take this course for credits.

APPLIED SOCIAL SCIENCE C356
Group Dynamics (3 credits)

Prerequisite: APSS C355 taken in the previous semester. Building on the learnings of the first term in Interpersonal Dynamics, this course provides the opportunity to reflect on the experience from the point of view of the group. In addition to study of theories of group development, there will be attention to developing group skills such as leadership, problem solving, decision making.

APPLIED SOCIAL SCIENCE C360
Special Seminar in Applied Social Science
(3 credits)

Prerequisite: Permission of the Depart-

ment. The subject for the seminar will vary from year to year reflecting recent developments in social change, new approaches in the behavioural sciences, or the special interests of the instructor.

APPLIED SOCIAL SCIENCE C361
Special Seminar in Applied Social Science
(3 credits)

Prerequisite: Permission of the Department. Students who have received credit for APSS C360 may register for APSS C361, provided that the subject matter is different.

APPLIED SOCIAL SCIENCE C413
Adolescent Behaviour in Urban Areas
(6 credits)

Prerequisite: APSS C250, C355 and C356. A survey of adolescent values, family and group relations, social mobility, friendship patterns, educational and vocational adjustment, with a focus on understanding social behaviour in urban communities. Attention will also be given to programmes attempting to enhance adolescent development and reduce social problems.

APPLIED SOCIAL SCIENCE C415
Personal Values and Social Problems
(3 credits)

Prerequisite: Enrolment in the BA Major in APSS. This course is designed as an integrative seminar for final-year students. It is intended to help students draw together their learning from a variety of disciplines and relate it to practical conditions of the social world. The course includes identification of personal strengths, interests, goals, and values related to social and community service.

APPLIED SOCIAL SCIENCE C418
Gerontology for the Practitioner I
(3 credits)

This course provides an overview of the status and problems of the elderly in our society. Through interviews, visits, readings, and lecture-discussions, the course is designed to foster an understanding of some of the problems confronting the elderly. Attention is given to the resources available for the elderly as well as to approaches to the problems of the elderly that maximize their sense of responsibility.

APPLIED SOCIAL SCIENCE C419
Gerontology for the Practitioner II
(3 credits)

Prerequisite: APSS C418. This course will focus in depth on one or two pivotal issues for the elderly in our society. In this course students will interview the elderly, visit community resources for the elderly, and develop approaches to the solutions for the problems identified.

APPLIED SOCIAL SCIENCE C420
Organizational Change and Development
(6 credits)

Prerequisite: APSS C250, C355 and C356 or permission of the Department. This course focuses on the leader who solves problems and makes decisions in conjunction with other people in community-serving organizations. The basic objective of this course is to increase knowledge and understanding of human behaviour in the not-for-profit organizations. The course will focus on: i) theory and research, ii) understanding of the processes of leadership and decision making, iii) behavioural skills in working with people, iv) understanding of oneself in relation to administrative responsibility. This course will rely heavily on active participation of class members.

NOTE: Students who have received credit for APSS C421 may not take this course for credits.

APPLIED SOCIAL SCIENCE C431
Leadership in Group Development
(6 credits)

Prerequisite: APSS C250, C355 and C356. This course is designed to provide students with an opportunity to increase their effectiveness in leading small groups; to identify their leadership styles and to adapt individual styles to a variety of situations. The course will focus on: factors helping and hindering group process; communication patterns; problem solving; handling conflicts and dealing with personal needs of members. Special attention will be given to tools for systematic observation, group diagnosis and group self-analysis techniques. Students will be required to study the development of an outside group through the year. Lectures, laboratories and fieldwork.

APPLIED SOCIAL SCIENCE C440
Community Development (6 credits)

Prerequisite: APSS C250, C355 and C356 or permission of the Department. This course will have students working as volunteers in a community agency engaged in outreach work or community development. Class sessions will be designed for theoretical input on problems identified in students' field placement experience. Class sessions will include theory presentations, games and simulations, and problem solving. The emphasis will be on discovering what a social system is by observation and participation and finding out how to manage interventions in an appropriate fashion. Lectures and fieldwork.

NOTE: Students who have received credit for APSS C441 may not take this course for credits.

APPLIED SOCIAL SCIENCE C442
Advanced Integrative Seminar in Community Organization and Animation
(6 credits)

Prerequisite: This course is for Certificate students only. The purpose of this course is to coordinate the other courses required by the programme and to integrate the theory derived from the contributing disciplines within an applied social science perspective.

APPLIED SOCIAL SCIENCE C450
Principles and Practices of Counselling
(6 credits)

Prerequisite: APSS C250, C355 and C356. This course is designed to introduce students to the basic concepts of helping. Through theoretical and experiential approaches instruction will focus on basic concepts of relating to another person in a helping relationship and skill development in interviewing. Students will be briefly introduced to various counselling theories and approaches to clarify their own theoretical position in a helping relationship. This course is not designed to equip students to become professional counsellors, but to introduce them to the field and prepare them for future study and training. The course will include skill training, observation and demonstration exercises, role play, practice and discussion sessions, theory input and the use of films and video.

APPLIED SOCIAL SCIENCE C453
Sexuality and Human Relations (3 credits)
Prerequisite: Third-year standing and permission of the Department. Using a variety of small group processes, the seminar will explore physical and psychosocial factors in the emergence of the sexual self. Objectives of the seminar include helping students to increase awareness of sexual values and attitudes. Lectures and laboratories.
NOTE: Students will receive no more than 6 credits from APSS C453 and HEAL C472.

APPLIED SOCIAL SCIENCE C454
Special Seminar in Family Communication (3 credits)
Prerequisite: This course is for Certificate students only. A course in marriage and family living, including decision making, interpersonal relationships, communication, male-female lifestyle and problem solving within a family. Handling of crisis, loneliness, death, and dying will also be considered. The course studies marriage and family relationships in a way that can pertain directly to the student's own living experiences. Lectures and laboratories.

APPLIED SOCIAL SCIENCE C455
Advanced Integrative Seminar in Family Life Education (3 credits)
Prerequisite: This course is for Certificate students only. The purpose of this course is to coordinate the other courses required by the programme and to integrate the theory derived from the contributing disciplines within an applied social science perspective. Lectures, laboratories and fieldwork.

APPLIED SOCIAL SCIENCE C456
Interviewing (3 credits)
Prerequisite: APSS C250, C355, C356 or permission of the Department. The course will review different forms of interviewing, communication influences on the interviewer and interviewee, structure and design features of interviews, construction of questions, building rapport, controlling information flow, and limitations of the approach. Illustrations of interviewing will be taken from the contexts of business, counselling, mass media, and research, among others. Approximately equal emphasis will be devoted to theoretical discussions and practice.

APPLIED SOCIAL SCIENCE C461
Social Welfare and the Social Welfare Services (6 credits)
Prerequisite: Second-year standing or permission of the Department. A general course concerned with social welfare problems in modern society: some analysis of these problems in relation to economic and cultural patterns. A description of the functional settings in which social welfare services are practised. A consideration of the methods used in social welfare, and some consideration of the links between social welfare services and religion, law, medicine, nursing, teaching, and other professions.

APPLIED SOCIAL SCIENCE C463
Adulthood: Patterns and Transitions (6 credits)
Prerequisite: APSS C250, C355, C356 or permission of the Department. The course addresses itself to the phenomenon of adult development from early adulthood through maturity. The focus is on both the content of the life changes observed, and on the process of change from one life stage or period to another. Participants will explore the patterns of change in their own lives and relate these patterns to contemporary theories of adult development. The relationship of life changes to cultural and historical features of the times, and to working in social systems as helping professionals will also be examined. Thus, autobiographical accounts of class participants, and existing research evidence describing normative life changes, reactions to these, and the nature of the change process will be integrated in the evaluation of relevant theory.

APPLIED SOCIAL SCIENCE C471
Special Projects Seminar (6 credits)
Prerequisite: Second-year standing in Specialization or Major in Applied Social Science and permission of the Department. A seminar course for field projects, surveys, and research studies undertaken by each student.

APPLIED SOCIAL SCIENCE C472
Special Projects Seminar (6 credits)
Prerequisite: Second-year standing in Major in Applied Social Science and permission of the Department. Students who have received credit for APSS C471 may register for APSS C472 provided the subject matter is different.

APPLIED SOCIAL SCIENCE C473
Special Seminar in Applied Social Science (6 credits)
Prerequisite: PSYC C200, SOCI C200, and permission of the Department. The subject for the seminar will vary from year to year reflecting recent developments in social change, new approaches in the behavioural sciences or the special interests of the students or the instructor.

APPLIED SOCIAL SCIENCE C474
Special Seminar in Applied Social Science (6 credits)
Prerequisite: PSYC C200, SOCI C200, and permission of the Department. Students who have credit for APSS C473 may register for APSS C474 provided that the subject matter is different.

APPLIED SOCIAL SCIENCE C481
Special Seminar in Applied Social Science (6 credits)
Prerequisite: PSYC C200, SOCI C200, and permission of the Department. The subject for the seminar will vary from year to year, reflecting recent developments in social change, new approaches in the behavioural sciences, or the special interests of the instructor. Lectures, laboratories and fieldwork.

APPLIED SOCIAL SCIENCE C482
Special Seminar in Applied Social Science (6 credits)
Prerequisite: Permission of the Department. Students who have received credit for APSS C481 may register for APSS C482 provided the subject matter is different.

APPLIED SOCIAL SCIENCE C485
Special Seminar in Applied Social Science (3 credits)
Prerequisite: Permission of the Department. The subject for the seminar will vary from year to year reflecting recent developments in social change, new approaches in the behavioural sciences, or the special

interests of students or the instructor. Lectures and fieldwork.

APPLIED SOCIAL SCIENCE C486
Special Seminar in Applied Social Science (3 credits)

Prerequisite: Permission of the Department. Students who have received credit for APSS C485 may register for APSS C486 provided the subject matter is different.

APPLIED SOCIAL SCIENCE C487
Independent Study in Applied Social Science (3 credits)

Prerequisite: Permission of the Department. This course is intended for students who wish to continue a project initiated in another course in the Department. The instructor of that course must agree to supervise this independent study.

APPLIED SOCIAL SCIENCE C490
Approaches to Applied Social Research (6 credits)

Prerequisite: Third-year standing in the BA Specialization in Applied Social Science. This course is a project seminar which explores research approaches commonly used by social practitioners such as action research, survey-feedback studies, and programme evaluation. Each of the alternative modes of research relate directly to social and organizational change. Approaches of particular interest in this course are those which maximize involvement by people in directing their own change. The course includes a research project which utilizes an approach to applied social research of most interest to the student. Lectures and laboratories.

NOTE: Students who have received credit for APSS C400 may not take this course for credits.

31.030 Biological Sciences

Chairman
C.F. MACLEOD, *Associate Professor*

Professors
H.E. ENESCO
R.K. IBRAHIM
E.B. NEWMAN

Associate Professors
P. ALBERT
P.D. ANDERSON
S.S. ASHTAKALA
C. BECKMAN
R.T. CRONIN, s.j.
K.S. DHINDSA
N.N. KAPOOR
G. LEDUC
R.L. LOWTHER
E.J. MALY
B.S. MANGAT
J.D. McLAUGHLIN
R.M. ROY
S.M. RUBY
P. WIDDEN

Assistant Professors
D. FAIRBAIRN
M. HERRINGTON
J.A. KORNBLATT
R. STORMS

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Courses offered by the Biology Department are classified as follows:

A. ZOOLOGY COURSES
BIOL C230, C232, C233, C234, C235, C237, C330, C331, C332, C333, C335, C336, C337, C338, C339, C431, C432, C433, C434, C438, C439.

B. BOTANY COURSES
BIOL C240, C246, C341, C342, C343, C345, C347, C348, C441, C442, C448, C449.

C. ECOLOGY COURSES
BIOL C250, C351, C352, C353, C355, C356, C450, C454, C458, C459.

D. CELL AND MOLECULAR BIOLOGY COURSES
BIOL C220, C260, C270, C360, C361, C362, C363, C364, C365, C370, C460, C461, C462, C463, C464, C465, C467, C468, C469, C470.

E. BIOLOGY ELECTIVE COURSES
BIOL C222, C223, C242, C320, C321, C323, C328, C329, C380, C420, C421, C490, and any of the Zoology, Botany, Ecology, or Cell and Molecular Biology courses. Approved courses outside the Department may be taken for Biology elective credits.

For those wishing to concentrate in a particular area, recommended sequences of courses are described in course guides available in the Biology Department.

72 **BSc Honours in Biology**
An approved sequence of courses from the following selection constitutes an Honours in Biology. Students must consult with the Departmental Honours Adviser before registering for the Honours programme.

24 CHEM C221[3]* and C222[3]*, C372[3], C373[3]; BIOL C222[3], C260[3], C490[6]
6 BIOL C333[6] or C348[6] or C364[3] and C464[3]
36 Selected from *A. Zoology courses, B. Botany courses, C. Ecology courses* and *D. Cell and Molecular Biology courses.*
6 BIOL electives

NOTE: A minimum of 3 credits must be completed from each of the four subject areas within the first 60 credits.

A minimum of 21 credits in 300- and 400-level Biology courses must be completed, excluding BIOL C490.

**Students entering the programme with CEGEP Organic Chemistry must replace these credits with Biology electives.*

60 **BSc Specialization in Biology**
An approved sequence of courses from the following selection constitutes a Specialization in Biology.

18 CHEM C221[3]* and C222[3]*, C372[3], C373[3] (or BIOL C361[3] and C362[3]), BIOL C222[3], C260[3]
6 BIOL C333[6] or C348[6] or C364[3] and C464[3]
30 Selected from *A. Zoology courses, B. Botany courses, C. Ecology courses, D. Cell and Molecular Biology courses.*
6 BIOL electives

NOTE: A minimum of 3 credits must be completed from each of the four subject areas within the first 60 credits.

A minimum of 15 credits in 300- and 400-level Biology courses must be completed, excluding BIOL C490.

**Students entering the programme with CEGEP Organic Chemistry must replace these credits with Biology electives.*

36 BSc Major in Biology

An approved sequence of courses from the following selection constitutes a Major in Biology.

9 CHEM C221[3]* and C222[3]*, BIOL C260[3]

6 Selected from CHEM C372[3], C373[3], BIOL C222[3], C333[6], C348[6], C361[3], C362[3], C364[3], and C464[3]

15 Selected from *A. Zoology courses, B. Botany courses, C. Ecology courses, D. Cell and Molecular Biology courses.*

6 BIOL electives

NOTE: A minimum of 3 credits must be completed from each of the four subject areas within the first 60 credits.

A minimum of 6 credits in 300- or 400-level Biology courses must be completed.

**Students entering the programme with CEGEP Organic Chemistry must replace these credits with Biology electives.*

24 Minor in Biology

12 Selected from *A. Zoology courses, B. Botany courses, C. Ecology courses, D. Cell and Molecular Biology courses.*

12 BIOL electives.

NOTE: Minor is open to students registered in a programme other than one leading to the B.Sc. degree.

32 Certificate in Scientific Measurement (Biology Option)

12 BIOL C220[3], C222[3], C223[3], C230[3]

6 CHEM C311[2], C316[1], C390[2], C399[1]

14 PHYS C295[2], C296[2], C396[5], C397[5]

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

BIOLOGY C200

Fundamentals of Human Biology (6 credits)

A series of lectures, demonstrations, and seminars to provide non-biologists with a general survey of the fundamental principles of life, with special emphasis on the structures and functions of human beings. Lectures only.

NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credits.

BIOLOGY C201

Introductory Biology (3 credits)

A survey of basic principles of organismal biology: chemical basis of life, cell organization and control; elements of anatomy, taxonomy, physiology, morphogenesis, heredity, and evolution. Lectures and laboratory.

NOTE: Students with CEGEP Biology 301 or equivalent may not take this course for credits. Students entering Biology programmes without CEGEP Biology 301 may not take this course for Biology elective credits.

BIOLOGY C203

Fundamental Nutrition (3 credits)

This course deals with food composition (carbohydrates, lipids, proteins, vitamins, and minerals), its absorption and utilization, energy balance, special diets, and food technology. Lectures only.

NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credits.

BIOLOGY C205

Genetics and Human Welfare (6 credits)

A course on the principles of heredity as understood by modern biology. It deals also with the application of genetic principles to organisms, including humans. The biological basis of social problems is dealt with at some length. Organic evolution and its implications for human life and welfare are considered. Lectures only.

NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credits; may not be taken for credit with BIOL C206.

BIOLOGY C206

Elementary Genetics (3 credits)

A survey of classical and contemporary developments in the study of heredity, with particular attention to human examples. This course is open to the general student body. Lectures only.

NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credits; may not be taken for credit with BIOL C205.

BIOLOGY C207

Micro-Organisms and Man (3 credits)

A course designed for students registered in a programme other than one leading to the B.Sc. degree. It will consider the role of micro-organisms in plant and animal diseases, food spoilage, cellulose degradation, and water pollution, as well as their ecological, industrial, and pharmacological importance. Lectures only.

NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credits.

BIOLOGY C208

Environmental Biology I (3 credits)

This course examines the principles and concepts of ecosystems, the interaction of organisms and their environment. Energy flow and nutrient cycling in ecosystems, population dynamics, and community organization. Lectures only.

NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credits.

BIOLOGY C209

Environmental Biology II (3 credits)

Prerequisite: BIOL C208. The course considers both natural and man-made ecological problems, including various aspects of pollution, resource and waste control vital for human survival. Lectures, seminars, and tutorials.

NOTE: Students registered in a Biology or Biochemistry programme may not take this course for credits.

BIOLOGY C220

Introductory Cell Biology (3 credits)

Prerequisite: CEGEP Biology 301 or equivalent. Cell biology, elementary biochemistry, developmental biology, physiology, and genetics. Lectures and laboratory.

BIOLOGY C222
Biostatistics I (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. Statistical methods for the biological sciences; sampling; experimental design; data description; elementary probability; binomial, Poisson and Normal distributions; statistical inference; hypothesis testing; chi-square; analysis of variance; correlation; regression; covariance analysis; and analogous non-parametric techniques. Lectures and laboratory. *NOTE See §200.7*

BIOLOGY C223
Biostatistics II (3 credits)
Prerequisite: BIOL C222 or MATH C241. Sampling methods; analysis of variance and experimental design; regression and correlation techniques; bioassay; non-parametric statistics; analytical methods in field biology, genetics, and microbiology. Lectures and laboratory. *NOTE See §200.7*

BIOLOGY C230
Animal Biology (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. A survey of the major animal phyla, with emphasis on evolutionary trends, structure and function, behaviour and integration of organ systems. Lectures and laboratory.
NOTE: Students who have received credits for BIOL C234 may not take this course for credits.

BIOLOGY C232
Entomology I (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. This course introduces the student to the variety and complexity of insect life. Basic classification is followed by a more detailed study of morphology and anatomy, together with some physiological considerations, including growth and metamorphosis. Other topics such as adaptations for aquatic life, social behaviour, etc., will be discussed. Laboratories will begin with a field trip, the object of which will be to observe and collect various insect species. The rest of the laboratory sessions will complement the lectures. *Students are advised to begin an insect collection during the summer months preceding the course.* Lectures and laboratory.

BIOLOGY C233
Entomology II (3 credits)
Prerequisite: BIOL C232. To the initiated student, this course will present an in-depth study of insect behaviour. Topics will include sensory physiology, insects and plants, light and sound production, population dynamics, and insect ecology. An attempt will be made throughout the course to establish a web of interrelationships between the structures and functions of various insect parts. Laboratories will involve the use of live animals, and the students may be required to spend additional time for certain experiments. Lectures and laboratory.

BIOLOGY C234
Invertebrate Zoology I (3 credits)
Prerequisite: BIOL C201. The Protozoa, Acoelomate and Pseudocoelomate Invertebrates: A detailed survey of non-coelomate invertebrates which will deal in depth with the Protozoa, Ciliata, Porifera, Cnidaria, Platyhelminthes, Nematoda, Acanthocephala and Rotifera. Emphasis in lectures will be placed on phylogeny, physiology, functional morphology, adaptations to specific environments and reproduction. Close attention will be paid to evolutionary trends within and between phylogenetic groups. Both origin of the metazoa from single-celled ancestors and the role of the lower metazoa in the evolution of higher animals will be examined. Laboratory work stresses morphology of both preserved and living material and, where possible, live specimens are used to demonstrate behaviour. Lectures and laboratories.
NOTE: This course may not be taken for credit with BIOL C230.

BIOLOGY C235
Invertebrate Zoology II (3 credits)
Prerequisite: BIOL C230 or C234. The Coelomate Invertebrates: A detailed examination of the major coelomate invertebrate phyla including the Annelids, Molluscs, Arthropods (excluding Insects), Echinoderms and, if time permits, the minor coelomate phyla. Close attention will be paid to the origin of the coelom and its possible derivation from an evolutionary standpoint. Lectures will stress functional morphology, physiology and reproduction. Emphasis in the laboratory will be on dissection of selected representatives of each group and a detailed examination of the external characteristics of a range of representatives of each group. Where possible living specimens will be used to demonstrate behaviour. Lectures and laboratories.
NOTE: This course may not be taken for credit with BIOL C338.

BIOLOGY C237
Vertebrate Embryology (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. The fundamental processes of growth and development in the vertebrates. A comparative study is made of selected vertebrate species with emphasis on the experimental aspects. Lectures and laboratory.
NOTE: Students may not receive credit for this course if taken with BIOL C337.

BIOLOGY C240
Plant Biology (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. A survey of the major plant phyla, with emphasis on evolutionary trends, distribution, life cycles, morphology, development, physiology, economy, and ecology. Lectures and laboratory.

BIOLOGY C242
Economic Botany (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. Origin, development, and use of selected economic plants, including microorganisms. Their historical impact, prospects for future use, and importance to the Canadian economy are stressed, as well as world-wide problems of food and alimentation. Lectures only.

BIOLOGY C246
Biology of Fresh Water and Marine Algae (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. Taxonomy, physiology, and ecology of algae, with special consideration of their involvement in water pollution, sewage treatment, primary production, and their utilization in industry. Lectures and laboratory.

BIOLOGY C250
Fundamentals of Ecology (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. An introduction to the basic principles

of ecology dealing with the most important components of ecosystems. The course illustrates how environmental factors determine the distribution and abundance of plants and animals in various aquatic and terrestrial biomes of the world. Lectures only.

BIOLOGY C260
Genetics (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent; CEGEP Biology 401 or equivalent recommended. A course to illustrate the fundamental principles of inheritance in plants, animals, and microorganisms. Mendelian genetics, gene linkage, and mutation will be covered. The role of DNA as the hereditary material and the genetic code will be studied in detail, as will the mechanisms of DNA, RNA, and protein synthesis. Lectures and laboratory.
NOTE: This course may not be taken for credits with BIOL C360.

BIOLOGY C270
Introductory Microbiology (3 credits)
Prerequisite: CEGEP Biology 301 or equivalent. Structure and function, growth and genetics of microorganisms, with particular emphasis on bacteria and viruses as related to industry, health, agriculture, and ecology. Laboratory exercises will illustrate lecture material and introduce methods of handling microorganisms. Lectures and laboratory.

BIOLOGY C320
History of Biology (3 credits)
Prerequisite: Twelve credits from the Department of Biology. The lecture material is oriented toward the beginnings of formal biology in relation to the state of knowledge at the time, and the development of these ideas up to the beginning of the present century. Emphasis is on broad principles rather than on encyclopedic or biographical notes. Much illustrative or detailed information is provided by the class, since each student must present a seminar on a topic chosen from the history of biology. Lectures only.

BIOLOGY C321
Evolution (3 credits)
Prerequisite: Any twelve credits from the Department of Biology. A course that examines concepts leading from Darwin's theory to a modern synthesis of evolution. Lectures only.

BIOLOGY C323
Biology of Aging (3 credits)
Prerequisite: BIOL C230 and C260. Aging as a biological process will be examined at physiological, evolutionary, genetic, cellular, and molecular levels. Current theories of aging will be examined: these include the rate-of-living theory, the error-catastrophe theory, the autoimmune theory, the cross-linkage theory, and the somatic-mutation theory. Studies on aging in protozoans, plants, animals, and cells in culture will be evaluated in relation to these theories. Lectures only.

BIOLOGY C328
Special Topics in Biology (3 credits)
Prerequisite: Second-year standing in Biology Honours, Specialization or Major programme and permission of the Department. Selected topics will be presented according to the interests of the instructor. Lectures only.

BIOLOGY C329
Special Topics in Biology (3 credits)
Prerequisite: Second-year standing in Biology Honours, Specialization or Major programme and permission of the Department. Students who have received credit for BIOL C328 may register for BIOL C329 provided the subject matter is different.

BIOLOGY C330
Chordate Anatomy (3 credits)
Prerequisite: BIOL C230. A study of the anatomy and evolutionary development of the major organ systems of the chordates. In the laboratory, the lamprey, the mudpuppy, the turtle, and the cat will be dissected. Lectures and laboratory.
NOTE: This course may not be taken for credit with BIOL C331.

BIOLOGY C331
Comparative Vertebrate Anatomy (6 credits)
Prerequisite: BIOL C230, C235 or C237. A comprehensive study of the development and structure of the systems of a representative series of vertebrates from a comparative and evolutionary point of view, with some emphasis on the mammals. In the laboratory, representatives of the principal classes of vertebrates will be dissected. Lectures and laboratory.
NOTE: This course may not be taken for credit with BIOL C330.

BIOLOGY C332
Parasitology (3 credits)
Prerequisite: BIOL C230 or C234, previously or concurrently. A survey of the parasitic groups of invertebrates, with special reference to the parasites of man. Lectures and laboratory.
NOTE: This course may not be taken for credit with BIOL C339.

BIOLOGY C333
Animal Physiology (6 credits)
Prerequisite: BIOL C230, C235, or C237; CHEM C221 and C222. An integrated study of basic physiological phenomena of vertebrates. Topics discussed include muscle function, nervous system, circulation, respiration, temperature regulation, digestion, metabolism, excretion, and endocrinology. Lectures and laboratory.

BIOLOGY C335
Histology I (3 credits)
Prerequisite: BIOL C230, C237, or C238; C330 or C331 recommended. A comparative study of the microscopic characteristics of cells, tissues, and organs of vertebrates. Lectures and laboratory.

BIOLOGY C336
Histology II (3 credits)
Prerequisite: BIOL C335. An advanced comparative study of the vertebrate organ systems at the ultrastructural and histological level. Those registered will be expected to participate in a seminar. Lectures and laboratory.

BIOLOGY C337
Comparative Vertebrate Embryology (6 credits)
Prerequisite: BIOL C230 or C235. A detailed study, from the comparative point of view, of the developmental processes and organogenesis in representative vertebrate embryos, leading to an understanding of the

structure and function of the human systems. Lectures and laboratory.

NOTE: This course may not be taken for credit with BIOL C237.

BIOLOGY C338
Invertebrate Zoology (3 credits)

Prerequisite: BIOL C230 or C234. This course covers selected topics illustrating physiological phenomena occurring among several invertebrate phyla. Special emphasis is placed on endocrine control of growth, reproduction, and development. The role of environmental factors on these physiological processes is also stressed. Lectures and laboratory.

NOTE: Students who have received credits for BIOL C234 or C235 may not take this course for credits.

BIOLOGY C339
General Parasitology (6 credits)

Prerequisite: BIOL C230 or C234. A study of the protozoan, helminth, and arthropod parasites of man, domestic animals, and wildlife. Special emphasis will be placed on the transmission of parasites with reference to the behaviour and ecology of both the host and the parasite. Additional topics will include the evolution of the parasitic way of life, subsequent adaptations, and various aspects of the host-parasite relationship. Laboratory techniques for parasite recovery, basic staining and histological techniques, fecal analysis, identification of parasitic worms, infection of experimental animals. Lectures and laboratory.

NOTE: This course may not be taken for credit with BIOL C332.

BIOLOGY C341
Biology of the Fungi (3 credits)

Prerequisite: BIOL C270. A study of the morphology, taxonomy, phylogeny, and ecology of the fungi; their importance in agriculture, industry, medicine, and research will be emphasized. Lectures and laboratory.

BIOLOGY C342
Eastern North American Flora (3 credits)

Prerequisite: BIOL C240, previously or concurrently. A study of higher plant life occurring in Eastern North America, including recognition, collection, identification, classification, and distribution. Field work for practical experience with the regional flora in various habitats. Lectures and laboratory.

BIOLOGY C343
Biology of Non-Vascular Plants (3 credits)

Prerequisite: BIOL C240. A survey of the taxonomy, morphology, life cycles, and evolution of representatives of the lower plants (algae, mosses, lichens, liverworts). Lectures only.

BIOLOGY C345
Horticultural Science (3 credits)

Prerequisite: BIOL C240. The scientific concepts of horticulture are emphasized. Topics include plant breeding for adaptation to climate, chemical regulation of plant processes and effects on crop yield, environmental factors in crop production, pollutant impact on horticulture, problems in bulk storage, processing and marketing of perishables. The role of horticultural science in meeting world food requirements, as well as its impact on society, are discussed. Lectures only.

BIOLOGY C347
Plant Anatomy (3 credits)

Prerequisite: BIOL C240. A study of the internal structure of the plant as related to the processes of growth and metabolism. An experimental approach is presented to the study of the relationship between structure and function of various parts of the plant. The study of pathological, ecological, and economic aspects of anatomy, with emphasis on developmental anatomy. Laboratory work includes the preparation of permanent slides, using plant microtechnique. Lectures and laboratory.

BIOLOGY C348
Plant Physiology (6 credits)

Prerequisite: BIOL C240, and CHEM C221 and C222. A study of physiological processes of higher plants, including mineral nutrition, water absorption, transport, transpiration, photosynthesis, carbohydrate and nitrogen metabolism, respiration; plant responses to growth regulators, their mechanism of action, and their role in plant growth and metabolism. Lectures and laboratory.

BIOLOGY C351
Field and Laboratory Ecology (3 credits)

Prerequisite: BIOL C250 and permission of the Department. An introduction to the methods of qualitative and quantitative studies of aquatic and terrestrial ecosystems. Students will gain experience in techniques of field investigation. Field trips and laboratory work.

BIOLOGY C352
Plant Field Ecology (3 credits)

Prerequisite: BIOL C240. This course is normally offered for a two-week period during August at the Lacolle Centre. It will involve identification of local plant species, methods of sampling of communities, and examination of the pattern of plant communities in the area. Handling of data on populations and communities will be discussed, as well as statistics on population distributions. A mixture of formal lectures, organized field studies, and informal discussion. Students will be required to hand in a written report after the course has ended.

BIOLOGY C353
Intermediate Ecology (3 credits)

Prerequisite: BIOL C250. An in-depth analysis of factors affecting distribution and abundance of plants and animals. Environmental physiology, adaptations of plants and animals; population structures and behaviour patterns as responses to the physical environment will be discussed. Lectures only.

BIOLOGY C355
Fundamentals of Limnology (3 credits)

Prerequisite: BIOL C250, previously or concurrently. An introduction to the study of fresh-water ecosystems, with major emphasis on geographical, physical, and chemical characteristics. The major topics include the origin of lake basins, lake morphology and morphometry, waves and currents, the optical and thermal properties of lakes, dissolved chemicals. Some aspects of water pollution are considered. Lectures only.

BIOLOGY C356
Microbial Ecology (3 credits)

Prerequisite: BIOL C270. The course is designed to give an understanding of the environment in which microorganisms live,

the structure of microbial communities, and the ways in which microbes interact during the processes involved in decomposition and nutrient cycling. Stress will be placed on the ecology of soil microorganisms, though aquatic communities will also be discussed. Lectures and laboratory.

BIOLOGY C360
General Genetics (6 credits)
Prerequisite: BIOL C230 and C240. A study of the principles and processes of plant, animal, and human heredity from the classical foundations, through the modern to the recent molecular developments; developmental and population genetics, and evolution. Laboratory directed experiments with *Drosophila* and other organisms. Lectures and laboratory.
NOTE: This course may not be taken for credit with BIOL C260.

BIOLOGY C361
Cellular Metabolism I (3 credits)
Prerequisite: BIOL C230, C240, and CHEM C221 and C222. This course will deal with the simple metabolism of biomolecules in both plants and animals. A basic study of enzymes and their mode of action; nucleic acids and their role in protein synthesis. Distribution of organelles and their metabolism, cellular oxidations and energetics. Lectures only.
NOTE: This course may not be taken for credit with CHEM C372 and C373.

BIOLOGY C362
Cellular Metabolism II (3 credits)
Prerequisite: BIOL C361. Designed to follow BIOL C361, the course examines the intracellular localization of enzymes, their activity and control from a comparative cellular basis; coenzymes and their importance in intermediary metabolism. Membrane and cell-wall synthesis; hormones and their mode of action. Nutritional requirements of organisms. Lectures and laboratory.
NOTE: This course may not be taken for credit with CHEM C372 and C373.

BIOLOGY C363
Genetics of Higher Organisms (3 credits)
Prerequisite: BIOL C260. This course will cover various aspects of the genetics of multicellular and eukaryotic organisms, including cytogenetics, developmental, human, behavioural, and population genetics, as well as somatic cell genetics. Lectures only.

BIOLOGY C364
Cell Physiology (3 credits)
Prerequisite: CEGEP Biology 401 or BIOL C220; CHEM C221 and C222, previously or concurrently. A survey of the mechanisms involved in functions of single cells and subcellular components, particularly organelles; membrane phenomena, motility, bioenergetics, and cellular responses to environmental stress, including ionizing radiation, cold, and hydrostatic pressure. Lectures and laboratory.

BIOLOGY C365
Cytology (3 credits)
Prerequisite: CEGEP Biology 401 or equivalent, and CHEM C221 and C222. Cell structure and ultrastructure, with reference to organelle function; microscopic and cytochemical techniques of analysis. Emphasis is on experimental, molecular, and ultrastructure analysis, to achieve a correlation between cell structure and function. Lectures and laboratory.

BIOLOGY C370
Intermediate Microbiology (3 credits)
Prerequisite: BIOL C270, and CHEM C221 and C222; BIOL C361 or CHEM C371 recommended. Designed to continue from BIOL C270. Nutrition and metabolism of microorganisms, with special emphasis on metabolic processes unique to microorganisms (fermentations, oxidation of inorganic compounds, aerobic respiration, and anaerobic respiration). Basic immunology and immunochemistry; brief discussion of microbes in medicine and industry. Laboratory will include metabolic and serologic methods of identifying microorganisms. Lectures and laboratory.

BIOLOGY C380
Nutrition (3 credits)
Prerequisite: CHEM C221 and C222; BIOL C361 or CHEM C371 recommended. The concept of a balanced diet will be studied in relation to caloric content, and to protein, lipid, carbohydrate, vitamin, and mineral requirements. The consequences of dietary deficiencies will be examined. Special topics such as dieting, organic foods, megavitamins, food additives, and toxins will be discussed. Lectures only.

BIOLOGY C420
Radiation Biology and Radiotracer Methodology I (3 credits)
Prerequisite: BIOL C260 or C360, and C364. A survey of the elements of radiation physics, with emphasis on the properties of ionizing radiation and its interaction with matter, including dosimetry and methods of radiation counting. The effects of radiation at the macromolecular, cellular, and organismal level will be considered from both the somatic and genetic points of view. Lectures and laboratory.

BIOLOGY C421
Radiation Biology and Radiotracer Methodology II (3 credits)
Prerequisite: BIOL C420. A detailed study of selected topics in chemical and solid-state dosimetry, liquid-scintillation counting, neutron-irradiation techniques, cell kinetics, target theory, radiation botany, and mammalian radiobiology. Laboratory will emphasize the use of a wide range of radiosotopes and radiation sources. A visit to a major radiation lab or reactor will be arranged. Lectures and laboratory.

BIOLOGY C431
Biology of Fishes (3 credits)
Prerequisite: BIOL C330 or C331. This introduction to fish biology will include a study of anatomy, physiology, and classification of the major groups of fishes, as well as their ecology and zoogeography. Emphasis will be placed on freshwater fishes. Lectures and laboratory.

BIOLOGY C432
Microscopical Techniques (3 credits)
Prerequisite: BIOL C335. Histological techniques involved in the preparation of various animal tissues for microscopic study; techniques of microscopy, and some practical experience in photomicrography. Lectures and laboratory.

BIOLOGY C433
Neurology (6 credits)
Prerequisite: BIOL C330 or C331. A study of the anatomy and physiology of the nervous systems of vertebrates, especially of the mammals and man. Lectures and laboratory.

BIOLOGY C434
Comparative and Environmental Physiology (6 credits)
Prerequisite: BIOL C333, C362, or CHEM C371. This course is designed on a function-system basis and deals with a comparative study of physiological processes in animals, their behaviour, and physiological adaptations to the environment. Lectures and laboratory.

BIOLOGY C438
Advanced Topics in Zoology (3 credits)
Prerequisite: Third-year standing in a Biology Honours, Specialization, or Major programme, and permission of the Department. Lectures and seminars or laboratories on recent developments in taxonomy, ecology, physiology, or experimental techniques.

BIOLOGY C439
Advanced Topics in Zoology (3 credits)
Prerequisite: Third-year standing in a Biology Honours, Specialization, or Major programme, and permission of the Department. Students who have received credit for BIOL C438 may register for BIOL C439 provided the subject matter is different.

BIOLOGY C441
Plant Biochemistry (3 credits)
Prerequisite: BIOL C348 or CHEM C371 or BIOL C361 and C362. Biochemical study of the natural constituents and secondary metabolites unique to plants. Their biosynthesis, biotransformations, and functions in plants, as well as their economic and pharmacologic importance will be stressed. Lectures only.

BIOLOGY C442
Plant Responses to Environmental Stresses (3 credits)
Prerequisite: BIOL C348. Morphological, physiological, and biochemical responses of plants to various environmental stresses, including freezing, drought, light, mineral deficiencies, radiation, and environmental pollutants. Lectures only.

BIOLOGY C448
Advanced Topics in Botany (3 credits)
Prerequisite: Third-year standing in a Biology Honours, Specialization, or Major programme, and permission of the Department. Lectures and seminars or laboratories on recent developments in taxonomy, ecology, physiology or experimental techniques.

BIOLOGY C449
Advanced Topics in Botany (3 credits)
Prerequisite: Third-year standing in a Biology Honours, Specialization, or Major programme, and permission of the Department. Students who have received credit for BIOL C448 may register for BIOL C449 provided the subject matter is different.

BIOLOGY C450
Aquatic Ecology and Water Pollution (3 credits)
Prerequisite: BIOL C355. An inquiry into factors governing the distribution and abundance of aquatic organisms in lakes and streams. Emphasis on the nature and significance of the responses of aquatic organisms and communities through changes in water quality with pollution. Sources and types of pollutants and methods of evaluating pollution and treating wastes. Lectures only.

BIOLOGY C454
Population Ecology (3 credits)
Prerequisite: BIOL C353. A theoretical approach to ecological problems. Evolutionary aspects of ecological problems, population dynamics, species diversity, stability of ecosystems, regulation of population size, competition, and predation. Lectures only.

BIOLOGY C458
Advanced Topics in Ecology (3 credits)
Prerequisite: Third-year standing in a Biology Honours, Specialization or Major programme and permission of the Department. Lectures and seminars or laboratories on recent developments in plant, microbial, animal, aquatic or population ecology.

BIOLOGY C459
Advanced Topics in Ecology (3 credits)
Prerequisite: Third-year standing in a Biology Honours, Specialization, or Majors programme, and permission of the Department. Students who have received credit for BIOL C458 may register for BIOL C459 provided the subject matter is different.

BIOLOGY C460
Molecular Genetics (3 credits)
Prerequisite: BIOL C260 or C360, and CHEM C372 and C373 previously or concurrently, or permission of the Department. Basic microbial and molecular genetics, including mechanisms in protein synthesis, bacteriophage recombination. Use of genetics in the study of regulation of gene expression, the code and mechanism in protein synthesis; bacteriophage genetics; episomes. Lectures and conferences.

BIOLOGY C461
Advanced Genetics (3 credits)
Prerequisite: BIOL C260 or C360. Directed readings and seminars in classical and contemporary genetics designed to expose the student to research literature and problems. Students will probe in greater depth areas of particular interest in order to develop a critical sense and deepen an understanding of past and current work in this field. Seminars only.

BIOLOGY C462
Immunology (3 credits)
Prerequisite: BIOL C364, C260, or C360; CHEM C372, C373 previously or concurrently. A course in modern immunology stressing the following areas of study: the structure and properties of antigens and antibodies; the nature of the immune response; cellular-antibody synthesis; genetic aspects of antibody synthesis; theories relating antibody specificity to genetic potential. Lectures and conferences.

BIOLOGY C463
Developmental Biology (3 credits)
Prerequisite: BIOL C364, C260, or C360; C237 or C337 recommended. A study of the cellular aspects of development of animals and plants in relation to the acquisition of form. Lectures only.

BIOLOGY C464
Advanced Cell Physiology (3 credits)
Prerequisite: BIOL C364; CHEM C372, C373 previously or concurrently. Lectures and seminars dealing with selected topics in cell physiology, emphasizing a molecular experimental approach. Lectures only.

BIOLOGY C465
Biological Regulatory Mechanisms (3 credits)
Prerequisite: BIOL C260 or C360; CHEM C372, C373 previously or concurrently, or permission of the Department. Metabolic pathways, with an emphasis on their control and coordination; intercellular messengers in developmental and adult systems. Lectures and conferences.

BIOLOGY C467
Cytogenetics (3 credits)
Prerequisite: BIOL C365 and C260 or C360, or permission of the Department. A detailed study of plant and animal chromosomes, their structures, and normal and abnormal behaviour; species evolution and preservation; various anomalies, ploidy, heterosis, apomixy; human cytogenetics. Lectures and laboratory.

BIOLOGY C468
Advanced Topics in Cell and Molecular Biology (3 credits)
Prerequisite: Third-year standing in a Biology Honours, Specialization or Major programme and permission of the Department. Lectures and seminars or laboratories on recent developments in prokaryotic- and eukaryotic-cellular physiology, genetics, immunology, cytogenetics, or molecular biology.

BIOLOGY C469
Advanced Topics in Cell and Molecular Biology (3 credits)
Prerequisite: Third-year standing in a Biology Honours, Specialization, or Major programme, and permission of the Department. Students who have received credit for BIOL C468 may register for BIOL C469 provided the subject matter is different.

BIOLOGY C470
Microbial Physiology (3 credits)
Prerequisite: BIOL C270, CHEM C372, C373 previously or concurrently, or permission of the Department. A study of the biochemical activities underlying the life of microorganisms to survey the diverse patterns used by microorganisms in energy metabolism and biosynthesis. Applications of theoretical knowledge to industrial microbiology, including fermentation and antibiotic production will be examined. Lectures and conferences.

BIOLOGY C490
Independent Study (6 credits)
Prerequisite: Third-year standing in Honours Biology, or permission of the Department. In this course, the student undertakes a special research project selected in consultation with, and conducted under, the supervision of a faculty member of the Department. The project is intended to develop the student's knowledge of standard scientific procedures, including methods of researching scientific literature, the planning and execution of experimental and analytical procedures, the writing of a formal report, and the presentation of a seminar on the project.

31.040 Canadian Studies

Coordinator
G. DECARIE, *Associate Professor*

The Canadian Studies Programme seeks to give students a better understanding of the diverse origins and multi-faceted character of Canada. It provides the opportunity to obtain a liberal arts education given direction and depth by a focus on Canada.

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students should consult with the Programme Coordinator prior to registering for Canadian Studies courses.

60 BA Specialization in Canadian Studies

6 CDNS C220[6]
6 ENGL C290[6]; or ENGL C291[3] and C292[3]
6 French Language, at a level to be determined *in consultation with the Département d'Etudes Françaises*
6 *HIST C203$_3$ and C205$_3$*
6 *CDNS C421$_6$*
30 *Elective credits in related Canadian content courses, chosen in consultation with the Coordinator,* from Anthropology, Art History, Communication Studies, Economics, Education, English, Etudes Françaises, Geography, History, Interdisciplinary Studies, Journalism, Political Science, Religion, Sociology, and World Music.

42 BA Major in Canadian Studies

6 CDNS C220[6]
6 ENGL C290[6]; or ENGL C291[3] and C292[3]
6 French Language, at a level to be determined *in consultation with the Département d'Études Françaises*
6 HIST C203[3] and C205[3]
6 CDNS C421[6]
12 Elective credits in related Canadian content courses, *chosen in consultation with the Coordinator,* from Anthropology, Art History, Communication Studies, Economics, Education, English, Études Françaises, Geography, History, Interdisciplinary Studies, Journalism, Political Science, Religion, Sociology, and World Music.

30 Minor in Canadian Studies

6 CDNS C220[6]
6 ENGL C290[6]; or ENGL C291[3] and C292[3]
6 French Language, at a level to be determined *in consultation with the Département d'Études Françaises*
6 HIST C203[3] and C205[3]
6 CDNS C421[6]

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

CANADIAN STUDIES C220
Introduction to Canadian Studies
(6 credits)

Prerequisite: First-year standing Canadian An introduction to some of the problems which have been explored by the humanities and social sciences in the study of Canada. The themes will vary from year to year and could cover topics such as the industrialization of Quebec, immigrant and ethnic traditions, and the Americanization of Canada.

NOTE: Students who have received credit for INTE C220 may not take this course for credits.

CANADIAN STUDIES C320
Selected Topics in Canadian Studies
(3 credits)

This course focuses its attention on one or more aspects of the Canadian Studies programme. The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Programme Coordinator before registering in order to be sure of the title of the course in any one session. Lectures: 3 hours per week.

NOTE: Students who have received credit for INTE C320 may not take this course for credits.

CANADIAN STUDIES C321
Selected Topics in Canadian Studies
(3 credits)

Students who have received credit for CDNS C320 may register for CDNS C321 provided the subject matter is different.

NOTE: Students who have received credit for INTE C321 may not take this course for credits.

CANADIAN STUDIES C421
Seminar in Canadian Studies (6 credits)

Prerequisite: CDNS C220 or permission of the Coordinator. This is an advanced seminar

in Canadian Studies which emphasizes an interdisciplinary approach to certain concerns or characteristics of Canada and Canadians. It will normally be taken by students near the end of a Canadian Studies Programme.

NOTE: Students who have received credit for INTE C421 may not take this course for credits.

CANADIAN STUDIES C422
Seminar in Canadian Studies (6 credits)

Prerequisite: CDNS C220 and C421. Students who have received credit for CDNS C421 may register for CDNS C422 provided the subject matter is different.

NOTE: Students who have received credit for INTE C422 may not take this course for credits.

31.050 Chemistry

Chairman
C.H. LANGFORD, *Professor*

Professors
L.D. COLEBROOK
J.G. DICK
T. NOGRADY
N. SERPONE
J.R. UFFORD
R.H.C. VERSCHINGEL

Associate Professors
T.J. ADLEY
M. BALDWIN
P.H. BIRD
M. DOUGHTY
K. EKLER
Z. HAMLET
M.J. KORNBLATT
D. McELCHERAN
R.H. PALLEN
R.T.B. RYE
O.S. TEE
R.E. TOWNSHEND
G.J. TRUDEL
R.A. WESTBURY
R.H. ZIENIUS

Assistant Professors
S.J. DAUNT
A. ENGLISH
J. FRASER
M.G. HOGBEN
J. PARKES

Research Associates
R. LEVAN MAO
D. SHARMA

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

All students are advised to include a course in a computer language in their degree programme.

The superscript indicates credit value.

NOTE: The Order of Chemists of Quebec has fully accredited the curricula of i) Honours in Chemistry, ii) Specialization in Analytical Chemistry, iii) Specialization in Biochemistry, iv) Specialization in Chemistry. Upon satisfactory completion of any of the above-mentioned programmes, a graduate is eligible for membership in the Order. A working knowledge of French is required.

72 BSc Honours in Chemistry

Year I
24 CHEM C211^{6}, C221^{3}, C222^{3}, C231^{2}, C232^{2}, C233^{2}, C241^{3}, C242^{3}
3 MATH C220^{3}

Year II
26 CHEM C311^{2}, C316^{1}, C321^{2}, C322^{2}, C329^{2}, C331^{2}, C332^{2}, C338^{2}, C339^{2}, C342^{2}, C348^{1}, C391^{3}; C310^{2} and C315^{1}, or C314^{2} and C319^{1}

Year III
19 CHEM C450^{6}, 3 credits of Physical Chemistry, 10 credits at the 400 level (6 credits must be in one area)

60 BSc Specialization in Chemistry

Year I
22 CHEM C211^{6}, C221^{3}, C222^{3}, C231^{2}, C232^{2}, C241^{3}, C242^{3}
3 MATH C220^{3}

Year II
26 CHEM C311^{2}, C316^{1}, C321^{2}, C322^{2}, C329^{2}, C331^{2}, C332^{2}, C338^{2}, C339^{2}, C342^{2}, C348^{1}, C391^{3} ; C310^{2} and C315^{1}, or C314^{2} and C319^{1}

Year III
9 3 credits of Physical Chemistry, 6 credits at the 400 level in one area. The 9 credits required in Year III must include at least 2 credits of laboratory.

72 BSc Specialization in Biochemistry

Year I
16 CHEM C211^{6}, C221^{3}, C222^{3}, C231^{2}, C232^{2}
6 BIOL C230^{3}, C270^{3}

Year II
19 CHEM C311^{2}, C316^{1}, C321^{2}, C323^{2}, C329^{2}, C331^{2}, C333^{2}, C372^{3}, C373^{3}
6 BIOL C364^{3} and C260^{3}; or C333^{6}

Year III
6 CHEM C434^{3}, C479^{3}
6 Chosen from CHEM C470^{3}, C471^{3}, C472^{3}
4 CHEM C338^{2}, C339^{2}

Biochemistry Option
3 400-level Biology
6 3 credits chosen from CHEM C473^{3}, C474^{3}, or C475^{3}, and 3 credits in Chemistry at the 300 or 400 level; or CHEM C450^{6}

Medicinal Chemistry Option
9 CHEM C473^{3}, C474^{3}, C475^{3}

70-71 BSc Specialization in Analytical Chemistry

Year I
25 CHEM C211^{6}, C221^{3}, C222^{3}, C231^{2}, C232^{2}, C241^{3}, C242^{3}, C290^{3}
3 COMP C211^{3}

Year II
26 CHEM C310^{2}, C311^{2}, C315^{1}, C316^{1}, C321^{2}, C322^{2}, C329^{2}, C331^{2}, C332^{2}, C338^{2}, C339^{2}, C342^{2}, C348^{1}, C391^{3}
3-4 CHEM C390^{2}, C399^{1}; or PHYS C295^{2}, C296^{2}

Year III
13 CHEM C314^{2}, C319^{1}, C419^{6}, C492^{4}

78 BSc Specialization in Chemistry-Geology

Year I
30 GEOL C210^{3}, C211^{3}, C212^{3}, C213^{3}, C216^{3}
CHEM C211^{6}, C241^{3}, C242^{3}
COMP C211^{3}

Years II & III
15 GEOL C221^{2}, C310^{2}, C311^{6}, C317^{2}, C415^{3}

12 Chosen from GEOL C223[2], C312[3], C313[3], C390[3], C411[6], C416[3], C421[3], C423[3]
17 CHEM C231[2], C232[2], C290[3], C310[2], C314[2], C315[1], C319[1], C332[2], C342[2]
4 Chosen from CHEM C221[3], C222[3], C338[2], C339[2]

42 BSc Major in Chemistry
22 CHEM C211[6], C221[3], C222[3], C231[2], C232[2], C241[3], C242[3]
20 Chosen from CHEM C302[2], C310[2], C311[2], C313[2], C314[2], C315[1], C316[1], C319[1], C321[2], C322[2], C323[2], C326[2], C328[2], C329[2], C331[2], C332[2], C333[2], C335[2], C338[2], C339[2], C342[2], C348[1], C372[3], C373[3], C380[2], C390[2], C391[3], C399[1]
(Other courses may be selected in consultation with the Department.)

42 BSc Major in Biochemistry
Year I
16 CHEM C211[6], C221[3], C222[3], C231[2], C232[2]
3 BIOL C270[3]
Year II
14 CHEM C321[2], C323[2], C329[2], C333[2], C372[3], C373[3]
Year III
3 CHEM C479[3]
6 Credits chosen from CHEM C470[3], C472[3], C473[3], C474[3]

24 Minor in Chemistry
22 CHEM C211[6], C221[3], C222[3], C231[2], C232[2], C241[3], C242[3]
2 credits chosen from Chemistry 300-level courses.
(Other combinations may be arranged in consultation with the Department.)

33 Certificate in Scientific Measurement (Chemistry Option)
19 CHEM C211[6], C310[2], C314[2], C315[1], C319[1], C390[2], C399[1], C490[3], C499[1]
14 PHYS C295[2], C296[2], C396[5], C397[5]

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

CHEMISTRY CO-OPERATIVE PROGRAMME

Director
R.E. TOWNSHEND, *Associate Professor*

The Chemistry Co-operative Programme is offered to students who are enrolled in the Honours or Specialization in Chemistry, Specialization BSc in Biochemistry, or Specialization in Analytical Chemistry.

Students in CHEM Co-Op take the regular academic programme. The schedule of academic and work periods for an entering group of CHEM Co-Op students is given in §31.5.15.

The overseeing of the CHEM Co-Op programme is the responsibility of the Director and the departmental Co-Op Committee, which provides the connecting link between students, employers and the Institute for Co-operative Education.

Students interested in applying for the CHEM Co-Op should refer to §31.515, where a full description of the admission requirements is provided, or write to The Principal, Institute for Co-Operative Education, 7308 Sherbrooke Street West, Montreal, Quebec, H4B 1R6. For information by telephone see "CONTACTS" in §31.515.

A student may be exempted from one or more of the introductory courses, on the basis of work done at CEGEP level. Where exemptions are given, the courses must be replaced with an equivalent number of credits in the sub-discipline involved, in order that the student successfully complete any of the programmes approved by the Order of Chemists of Quebec.

Because of the renumbering of courses in the Department, students should see §200 for a list of equivalent courses.

CHEMISTRY C205
General Chemistry I (3 credits)

Stoichiometry, states of matter, atomic structure, electron structure of atoms, the periodic table, periodic properties, bonding, solids. Lectures, tutorials, and laboratories.

NOTE: Students in programmes leading to the BSc degree may not take this course for credits to be applied to their programme of concentration.

CHEMISTRY C206
General Chemistry II (3 credits)

Prerequisite: CHEM C205. Thermochemistry, solutions and their properties, equilibrium, ionic equilibrium, pH, buffers, kinetics, reaction mechanisms, other selected topics related to biochemistry, biology, and engineering. Lectures, tutorials, and laboratories.

NOTE: Students in programmes leading to the BSc degree may not take this course for credits to be applied to their programme of concentration.

CHEMISTRY C208
Chemistry for Non-Science Students
(3 credits)

This course covers aspects of chemistry which are of general interest to the non-science student. Sections deal with the social impact of chemistry and with the chemistry of the natural and man-made environments. The necessary non-quantitative knowledge of chemistry is developed as the course unfolds.

NOTE: This course is not a prerequisite for any chemistry course. This course may not be taken for credit by Science students.

CHEMISTRY C211
Introductory Quantitative Analysis
(6 credits)

Prerequisite: CEGEP Chemistry 201; CE-

GEP Physics 301, CEGEP Mathematics 103 and 203; or equivalent courses. Treatment of analytical data; chemical equilibria as applied to volumetric and gravimetric procedures; general theory of titrations and titration curves; neutralization, precipitation, complexation, oxidation-reduction, and non-aqueous titrations, gravimetric analysis; potentiometry and potentiometric titrations; absorptimetric methods, separation methods. Laboratory is taken concurrently and provides experience in the techniques of analysis discussed in the lectures. Lectures and laboratory.

NOTE: A student who has obtained credits for GEOL C324 may not take this course for credits.

CHEMISTRY C221
Introductory Organic Chemistry I
(3 credits)

Prerequisite: CEGEP Chemistry 201 or equivalent. Synthesis, structure, and reactivity of saturated and unsaturated hydrocarbons. Elementary stereochemistry. Chemistry of benzene. Lectures and laboratory.

CHEMISTRY C222
Introductory Organic Chemistry II
(3 credits)

Prerequisite: CHEM C221 or one semester CEGEP Organic Chemistry. Synthesis, structure, and reactivity of principal functional groups. Simple reaction mechanisms. Lectures and laboratory.

CHEMISTRY C231
Introductory Physical Chemistry I
(2 credits)

Prerequisite: CEGEP Chemistry 201; CEGEP Physics 301; CEGEP Mathematics 103 and 203, or equivalent courses. Real gases, equations of state (Van der Waal's, Virial, etc.), kinetic molecular theory, the first law of thermodynamics, thermochemistry, entropy, and the second and third laws of thermodynamics, free energy and chemical equilibrium, electrochemical cells and the Nernst equation, use of activities, Gibbs-Helmholtz equation. Lectures only.

CHEMISTRY C232
Introductory Physical Chemistry II
(2 credits)

Prerequisite: CHEM C231 or an equivalent course. Applications of thermodynamics to one-, two-, and three-component systems, including the properties of liquids, colligative properties, and phase equilibria. Chemical kinetics, the behaviour of electrolytes in solution, photochemistry. Lectures only.

CHEMISTRY C233
Introductory Quantum Chemistry
(2 credits)

Prerequisite: MATH C220; CEGEP Chemistry 201, CEGEP Physics 301, or equivalent courses. This course is intended to introduce the student to the fundamental ideas of quantum theory as applied to chemistry. Topics covered include the origins of quantum theory, the postulates of quantum mechanics, applications to simple systems, the hydrogen atom, other atoms, and simple molecules. Lectures only.

CHEMISTRY C241
Introduction to Inorganic Chemistry
(3 credits)

Prerequisite: CEGEP Chemistry 201; CEGEP Physics 301; CEGEP Mathematics 103 and 203; or equivalent courses. The structure of the atom; Ionic Bonding; Covalent Bonding; Chemical Forces; Acid-Base Chemistry; Chemistry in Aqueous and Non-aqueous solutions. Lectures and laboratory.

CHEMISTRY C242
Chemistry of the Main Group Elements
(3 credits)

Prerequisite: CEGEP Chemistry 201; CEGEP Physics 301; CEGEP Mathematics 103 and 203; or equivalent courses. A survey of the properties and reactions of: Hydrogen, Group IA Lithium to Cesium, Group IIA Beryllium to Radium, Group IIIA Aluminum to Thallium, Carbon, Group IVB Silicon to Lead, Nitrogen, Group VB Phosphorus to Bismuth, Oxygen, Group VIB Sulphur to Polonium, the Halogens, the Noble Gases, Group IIB Zinc, Cadmium, and Mercury. Lectures and Laboratory.

CHEMISTRY C282
Environmental Chemistry (2 credits)

Prerequisite: CEGEP Chemistry 201, or equivalent. The origins and evolution of our environment. The atmosphere, its photochemistry and the solar radiation balance. The hydrosphere, pH and oxidation potential. The lithosphere, erosion processes and soil. The biosphere, photosynthesis and the chemistry of micro-organisms. The natural cycles. Lectures only.

CHEMISTRY C290
Laboratory Automation and Data Handling
(3 credits)

Prerequisite: COMP C211, or equivalent, CHEM C211, previously or concurrently, and written permission of the Department. Introduction to some modern techniques used to transduce and manipulate raw chemical data. Topics to be discussed will include: statistical treatment of chemical data, using programmes written in Basic, or other high-level language; the use of binary, decimal, and hexadecimal numbers; programming a single-board-computer or modern microcomputer using machine and assembly languages; input-output operations; elementary interfacing techniques. Experiments will involve the collection and treatment of data from common laboratory instruments such as electrodes and photodetectors. Lectures, tutorials and laboratory.

CHEMISTRY C302
Industrial Chemistry, Resources and Environment (2 credits)

Prerequisite: Must be registered in a Chemistry programme and be within 42 credits of graduation; or permission of the Department. An introduction to chemical engineering for chemists. Management and conservation of resources; pollution control; occupational and environmental health; technological and environmental impact assessment.

CHEMISTRY C303
Chemical Technology and Human Values
(2 credits)

Prerequisite: Must be registered in a Chemistry programme and be within 42 credits of graduation; or permission of the Department. The history of technology; the impact of chemistry on material life; appropriate technologies; chemistry and war; the social responsibility of the scientist.

CHEMISTRY C310
Electrochemical Methods of Analysis
(2 credits)
Prerequisite: CHEM C211; CHEM C315 concurrently. Topics in theory and application involving potentiometry and potentiometric titrations; automated methods; polarization titrations; coulometry and coulometric titrations; electrogravimetry and electrolytic separations; voltametry and polarography; pulse and sweep methods; amperometric titrations; conductometric techniques; chronopotentiometry and chronoamperometry. Lectures only.

CHEMISTRY C311
Introductory Analytical Organic Chemistry
(2 credits)
Prerequisite: CHEM C211 and C222, or CHEM C222 and 6 credits in Biology course(s) with laboratory; CHEM C316 concurrently. Identification of organic compounds by physical, chemical and instrumental methods. Discussion of generalized analytical procedures, and of the basic principles and applications of relevant instrumentation. Use of data bases in interpretation of spectra and identifying compounds. Evaluation and use of computer and other data bases in chemical analysis. Lectures only.

CHEMISTRY C313
Environmental Pollution and Pollutant Analysis (2 credits)
Prerequisite: CHEM C222, and any one of CHEM C211, C372 and C373, BIOL C250. Scope and purpose of environmental chemistry; nature and composition of natural waters; pollution and trace-level substances in water; water analysis; nature and composition of the atmosphere; atmospheric levels of the oxides of carbon, sulphur, and nitrogen; organic, inorganic and particulate pollutants in the atmosphere; monitoring and analysis of pollutants in the atmosphere. Lectures only.

CHEMISTRY C314
Optical Methods of Analysis (2 credits)
Prerequisite: CHEM C211; CHEM C319 concurrently. Theory and application of absorptimetric, turbidimetric, nephelometric, and fluorescence techniques; flame absorption and emission spectroscopy; electrical and plasma arc emission spectroscopy; atomic absorption flame and flameless techniques; X-ray fluorescence and diffraction methods; X-ray microprobe methods; radiochemical techniques. Lectures only.

CHEMISTRY C315
Electrochemical Methods of Analysis Laboratory (1 credit)
Prerequisite: CHEM C211; CHEM C310 concurrently. Analytical experiments providing experience in the methods discussed in CHEM C310. Laboratory only.

CHEMISTRY C316
Introductory Analytical Organic Laboratory
(1 credit)
Prerequisite: CHEM C211 and C222, or CHEM C222 and 6 credits in Biology course(s) with laboratory, CHEM C311 concurrently. Semimicro analytical methods, semimicro preparative methods, spectroscopic methods and computer-assisted data base searches used in identifying organic compounds. Laboratory only.

CHEMISTRY C319
Optical Methods of Analysis Laboratory
(1 credit)
Prerequisite: CHEM C211; CHEM C314 concurrently. Analytical experiments providing experience in the methods discussed in CHEM C314. Laboratory only.

CHEMISTRY C321
Organic Stereochemistry (2 credits)
Prerequisite: CHEM C222, or equivalent; and C232. Conformational analysis of acyclic and cyclic systems. Relationship to physical properties and chemical reactivity: Chirality, enantiomerism, diastereomerism, prochirality, enantiotopism, and diastereotopism. Examples from steroid, carbohydrate, and enzyme mediated reactions. Lectures only.

CHEMISTRY C322
Organic Reactions (2 credits)
Prerequisite: CHEM C321 and C331, previously or concurrently. A mechanistic survey of reactions of major synthetic utility. Determination of reaction mechanisms. Importance of reactive intermediates: carbocations, carbanions, radicals, and carbenes. Lectures only.

CHEMISTRY C323
Bio-Organic Chemistry (2 credits)
Prerequisite: CHEM C321. Chemistry of carbohydrates. Aspects of heterocyclic chemistry, particularly as they apply to purines, pyrimidines, and important coenzymes: pyridoxal, NADH, thiamine, flavines. Model-enzyme studies. Lectures only.

CHEMISTRY C326
Natural Products (2 credits)
Prerequisite: CHEM C222, or equivalent. Structure determination, synthesis, and stereochemistry of various natural products. Examples from terpenes, carotenoids, steroids, alkaloids, and antibiotics. Lectures only.

CHEMISTRY C328
Organic Chemistry of Polymers (2 credits)
Prerequisite: CHEM C222 or equivalent, and C232. Introduction to the fundamental aspects of polymers and polymerization. Methods of preparation, reaction mechanisms of polymer synthesis including condensation polymerization; addition polymerization: free radical, anionic, cationic; Ziegler-Natta (heterogeneous) polymerization. Lectures only.

CHEMISTRY C329
Organic Reactions Laboratory (2 credits)
Prerequisite: CHEM C322 or C323, previously or concurrently; CHEM C331, and C332 or C333 previously or concurrently. Experiments with reactions of synthetic and mechanistic importance. Reactions involving reactive intermediates. Kinetic and thermodynamic control. Rearrangements. Laboratory only.

CHEMISTRY C331
Chemical Kinetics (2 credits)
Prerequisite: CHEM C232. Topics in chemical-reaction kinetics, including: mechanisms of elementary reactions; theories of chemical-reaction rates; free-radical reactions; factors influencing rates of reactions in solution; acid-base catalysis; catalysis by enzymes; the Michaelis-Menten mechanism; inhibition in enzyme-catalyzed reactions. Lectures only.

CHEMISTRY C332
Intermediate Thermodynamics (2 credits)
Prerequisite: CHEM C232. Comparison of closed and open systems. Partial molal quantities. Chemical potential. Real gases. Fugacity. Equilibrium constant. Free-energy function. Ideal solutions. Real solutions. Duhem-Margules equation. Lectures only.

CHEMISTRY C333
Intermediate Physical Chemistry for Biochemists (2 credits)
Prerequisite: CHEM C232. Activities and standard states for non-electrolytes. Activities and activity coefficients for electrolytes. Electrical and magnetic properties of molecules. Basic electrostatic ideas. Dielectric behaviour. Circular dichroism. Optical rotatory dispersion. Fluorescence. Phosphorescence. Lectures only.

CHEMISTRY C335
Physical Chemistry of Polymers (2 credits)
Prerequisite: CHEM C222 and C232. Physical properties of polymers; polymer-solution theory; molecular-weight distributions and fractionation; molecular-weight determinations by colligative properties, light-scattering and ultra-centrifuge techniques; kinetics of condensation and addition polymerizations; copolymerization. Lectures only.
NOTE: Students who have received credit for CHEM C435 may not take this course for credit.

CHEMISTRY C338
Physical Chemistry Laboratory I (2 credits)
Prerequisite: CHEM C232. Experiments in physical chemistry to illustrate some of the concepts studied previously, and to acquire basic dexterity in the physical chemistry laboratory. Laboratory only.

CHEMISTRY C339
Physical Chemistry Laboratory II (2 credits)
Prerequisite: CHEM C232. Further experiments in physical chemistry. The student will be expected to investigate more complex systems and to write meaningful laboratory reports. Laboratory only.

CHEMISTRY C342
Chemistry of the Transition Elements (2 credits)
Prerequisite: CHEM C241 and C242, CHEM C211. Coordination chemistry; structure, theory of bonding, reactivity of transition metal complexes of various coordination numbers. Descriptive chemistry of transition metals of various oxidation states. Organometallic chemistry. Inorganic chemistry in biological systems. Lectures only.

CHEMISTRY C348
Inorganic Chemistry Laboratory (1 credit)
Prerequisite: CHEM C342, previously or concurrently. Syntheses of coordination and organometallic compounds requiring various techniques. Determination of various properties of the compounds prepared at the laboratory bench. Laboratory only.

CHEMISTRY C372
Introductory Biochemistry I (3 credits)
Prerequisite: CHEM C222 and, for Biochemistry students, CHEM C232. Thermodynamics and the role of ATP; structure and function of proteins and nucleic acids including protein structure, enzymology, replication of DNA, transcription and translation of DNA. Lectures and laboratory.
NOTE: Students who have received credit for CHEM C371 may not take this course for credit.

CHEMISTRY C373
Introductory Biochemistry II (3 credits)
Prerequisite: CHEM C372. Intermediary metabolism, including biosynthesis and degradation of carbohydrates, lipids and amino acids; bioenergetics and photosynthesis. Lectures and laboratory.
NOTE: Students who have received credit for CHEM C371 may not take this course for credit.

CHEMISTRY C380
Structure of the Chemical Industry (2 credits)
Prerequisite: Second-year chemistry students, or permission of the Department. Broad outline of major factors to be considered by the chemical industry when contemplating manufacture of a new product or product group, with special emphasis on market determination, customs, tariffs, use of Statistics Canada data, existing or potential competition, inherent advantages or disadvantages. Relative importance of labour versus capital; plant location; transportation considerations; by-product disposition; hazard and pollution considerations; government-regulated products; government incentives. Marketing channels; export considerations; foreign tariffs and non-tariff barriers. Lectures only.

CHEMISTRY C390
Introductory Instrumentation (2 credits)
Prerequisite: CHEM C211, or two 6-credit Biology courses with laboratory; CHEM C399 concurrently. Introduction to measurement principles. Instrument design and basic techniques; analysis of amplifiers, impedance matching circuits, integrators, differentiators, comparators, filter circuits and other basic modules used in pH meters, potentiometric titrators, polarographs, gas chromatographs, photometers and spectrophotometers to emphasize facility in the use of similar instruments for measurement of specific systems. Lectures only.

CHEMISTRY C391
Chemical Spectroscopy and Analysis (3 credits)
Prerequisite: CHEM C222 and C232. General theories of spectroscopy. Infrared, ultraviolet, proton magnetic resonance spectroscopies and mass spectrometry will be applied to the elucidation of the structure of organic molecules. Rates and activation energies by pmr. Gas chromatography. Lectures, problem periods and laboratory.

CHEMISTRY C399
Introductory Instrumentation Laboratory (1 credit)
Prerequisite: CHEM C211 or two full laboratory courses in Biology; CHEM C390 concurrently. Basic RLC circuits, filters, semiconductors, transistors, and basic IC circuits used in instrumentation. Derivation of equivalent circuits to analyze properties, performance and estimate error. Introduction to mechanical, optical and electrical transducers and recorders; signal-to-noise optimization, digital electronics, logic circuits and automation. Laboratory only.

CHEMISTRY C419
Research Project and Thesis in Analytical Chemistry (6 credits)
Prerequisite: The student must be enrolled in the Specialization in Analytical Chemistry programme. The student will work on a research project involving a theoretical and/or practical aspect of analytical chemistry, and will write a thesis on the results. The research project will be scrutinized by a committee of members of the Department. Experimental work and theory.

CHEMISTRY C421
Physical Organic Chemistry (3 credits)
Prerequisite: CHEM C322. Determination of organic reaction mechanisms using kinetics, activation parameters, acid-base catalysis, Bronsted catalysis law, solvent effects, medium effects, isotope effects, substitutent effects and linear free energy relationships. Lectures only.

CHEMISTRY C422
Organic Synthesis (4 credits)
Prerequisite: CHEM C322. Consideration of synthetic strategy and synthesis design. Modern synthetic methods and reagents, exemplified by syntheses of terpenes, alkaloids, pheromones, and novel structures. Lectures and laboratory.

CHEMISTRY C423
Selected Topics in Organic Chemistry (3 credits)
Prerequisite: CHEM C321 and C322. In-depth study of a topic of current interest. Topics may be from the areas of Heterocyclic Chemistry, Organic Photochemistry, Advanced Organic Synthesis, Theoretical Organic Chemistry, Physical Organic Chemistry, Organic Spectroscopy. Lectures only.

CHEMISTRY C424
Selected Topics in Organic Chemistry (3 credits)
Prerequisite: Permission of the Department. A student who has received credit for CHEM C423 may register for CHEM C424, provided the subject matter is different. Lectures only.

CHEMISTRY C431
Statistical Thermodynamics (3 credits)
Prerequisite: CHEM C331, and CHEM C332 or C333. Elements of probability theory, microcanonical, canonical, and grand canonical ensembles; Boltzmann distribution; quantum mechanical treatment of an ideal gas; Fermi-Dirac and Bose-Einstein statistics; Einstein and Debye models of a monatomic crystal; conformation of polymer chains. Lectures only.

CHEMISTRY C432
Selected Topics in Physical Chemistry (3 credits)
Prerequisite: CHEM C331, and CHEM C332 or C333. Subject matter will differ from year to year to take advantage of the special interest of the instructor concerned. The course will provide opportunities to senior students for discussion and advanced study in physical chemistry. Lectures only.

CHEMISTRY C433
Advanced Quantum Chemistry (3 credits)
Prerequisite: CHEM C233, and CHEM C332 or C333. This course deals with the theories of valence for both organic and inorganic materials. Topics covered include symmetry, construction, and use of character tables, valence-bond theory, molecular-orbital theory, crystal-field theory, ligand-field theory. Lectures only.

CHEMISTRY C434
Advanced Physical Chemistry for Biochemists (3 credits)
Prerequisite: CHEM C333. Thermodynamics applied to biological systems. Surface tension. Capillarity. Surface thermodynamics. Surface films. Adsorption. Electrocapillarity. Electrokinetic effects. Transport properties. Light scattering. Zimm plot. Lectures only.

CHEMISTRY C437
Selected Topics in Physical Chemistry (3 credits)
Prerequisite: Permission of the Department. A student who has received credit for CHEM C432 may register for CHEM C437, provided the subject matter is different. Lectures only.

CHEMISTRY C439
Advanced Physical Chemistry Laboratory (3 credits)
Prerequisite: CHEM C331; C332 or C333; C339. Advanced experimentation in chemical kinetics and thermodynamics, with complete laboratory reports. Lectures and laboratory.

CHEMISTRY C441
Selected Topics in Inorganic Chemistry (3 credits)
Prerequisite: CHEM C342. Selected topics in the field of Inorganic Chemistry chosen from current interest in this field. Particular topics may include: Organometallic Chemistry, Kinetics and Mechanisms of Inorganic Reactions, Electronic Spectroscopy of Transition-Metal Complexes, Inorganic Photochemistry, Introduction to X-ray Crystallography, and other current topics from the literature. Lectures only.

CHEMISTRY C442
Physical Methods in Inorganic Chemistry (3 credits)
Prerequisite: CHEM C241 and C242; CHEM C211; CHEM C391, previously or concurrently. Introduction to symmetry and the character tables. Diffraction methods, X-ray, ESCA, UV-Visible, ORD and CD, EPR, Moessbauer, NQR, NMR, IR, and Raman. Lectures only.

CHEMISTRY C443
Selected Topics in Inorganic Chemistry (3 credits)
Prerequisite: Permission of the Department. A student who has received credit for CHEM C441 may register for CHEM C443, provided the subject matter is different. Lectures only.

CHEMISTRY C449
Laboratory in Synthesis and Techniques in Inorganic Chemistry (1 credit)
Prerequisite: CHEM C442, previously or concurrently. Some of the techniques discussed in CHEM C442 will be employed in the laboratory to characterize and determine properties of compounds synthesized at the laboratory bench. Laboratory only.

CHEMISTRY C450
Research Project and Thesis (6 credits)
Prerequisite: Third-year standing in Honours Chemistry, or permission of the Depart-

ment. The student will work on a research project selected in consultation with and conducted under the supervision of a faculty member of the Department; and will write a thesis on the results. The project will also be the subject of a seminar before the Department.

NOTE: Students planning to take this course must consult with the Chemistry Department as early as possible the year before the final year.

CHEMISTRY C470
Proteins and Lipids: Structure Function Relationships (3 credits)
Prerequisite: CHEM C372 and C373. Application of spectroscopic methods (U.V., C.D., E.S.R. and fluorescence) to analyses of protein conformation changes in muscle proteins during contraction—ATP-myosin, actinmyosin and troponin-CA^{+2} interactions. Characterization of proteins in biological membranes—isolation, orientation, synthesis and function. Structure and function of phospholipids and cholesterol—physical state, transmembrane distribution, and lipid-protein interactions. Lectures only.

CHEMISTRY C471
Enzyme Kinetics and Mechanism (3 credits)
Prerequisite: CHEM C372, C373 and C331. Steady-state kinetics, including the use of initial velocity studies and product inhibition to establish a kinetic mechanism; non-steady-state kinetics, isotope effects, energy of activation, etc; detailed mechanisms of selected enzymes. Lectures only.

CHEMISTRY C472
Selected Topics in Biochemistry (3 credits)
Prerequisite: Permission of the Department. Selected topics in the field of Biochemistry chosen according to the interests of the instructor. Lectures only.

CHEMISTRY C473
Medicinal Chemistry I (3 credits)
Prerequisite: CHEM C372 and C373. Physicochemical principles of drug action. Influence of solubility, surface phenomena, stereochemistry and electronic properties on drug action. Nonspecific drugs, anaesthetics, membrane-active disinfectants and antibiotics. Quantitative structure-activity relationships. Receptor theory and models, methods of receptor characterization. Lectures only.

CHEMISTRY C474
Medicinal Chemistry II (3 credits)
Prerequisite: CHEM C473. Drugs acting on endogenous messengers and their targets: Cholinergic, adrenergic, dopaminergic and serotoninergic neuronal systems. Histamine, amino acid neurotransmitters. Steroid and peptide hormones, prostaglandins. Enzymes as drug receptors. Drug design. Lectures only.

CHEMISTRY C475
Pharmacology I (3 credits)
Prerequisite: CHEM C372 and C373. Pharmacokinetics, drug metabolism and interaction. Toxicology, carcinogeneticy, and teratogeneticy. Drug development and testing. Lectures only.

CHEMISTRY C476
Pharmacology II (3 credits)
Prerequisite: CHEM C475. Autonomic nervous system pharmacology. Functions of central nervous system, depressants, stimulants. Narcotic analgesics, addiction. Cardiovascular, renal, and endocrine pharmacology. Lectures only.

CHEMISTRY C477
Selected Topics in Biochemistry (3 credits)
Prerequisite: Permission of the Department. A student who has received credit for CHEM C472 may register for CHEM C477, provided the subject matter is different. Lectures only.

CHEMISTRY C479
Advanced Biochemistry Laboratory (3 credits)
Prerequisite: Any two of CHEM C470, C471, C472; previously or concurrently. This course deals with the theory and practice of modern biochemical laboratory techniques. Laboratory only.

CHEMISTRY C490
Advanced Instrumentation (3 credits)
Prerequisite: CHEM C390 and C399; CHEM C499 concurrently. Instrumental amplifiers, transducers, and measurement errors. Analog, time, and digital data domains. Optimization of electronic measurements, frequency response, sampling parameters, signal-to-noise enhancement and budget error analysis. Micro-processors for control, data acquisition, and interfacing to computers. Lectures only.

CHEMISTRY C492
Chemical Spectroscopy (4 credits)
Prerequisite: CHEM C321, C311 and C316 or C391. Theory and application of EPR Spectroscopy, rotational spectroscopy, rotation-vibrational spectroscopy, Raman spectroscopy. Lectures and laboratory.

CHEMISTRY C499
Advanced Instrumentation Laboratory (1 credit)
Prerequisite: CHEM C390 and C399; CHEM C490 concurrently. Selected experiments to demonstrate the topics discussed in CHEM C490. Laboratory only.

31.060 Classics

Chairman
L. SANDERS, *Associate Professor*

Associate Professors
D. BROWN
S. CASEY
E. PRESTON
B. WARDY

Associate Professor of Classics and Linguistics
C.R. BARTON

PROGRAMMES

The Department offers courses in Ancient History, in Ancient Greek and Latin, and in classical literature read in the original or in translation. It also offers courses in classical civilization, Pre-History, and Archaeology.

The Department offers programmes in Classical Philology, Classical Studies and Classical Archaeology. The programme of Classical Philology requires linguistic competence in Ancient Greek and Latin, and is directed towards a comprehensive understanding and appreciation of Ancient History and Literature. The programme of Classical Studies does not require a knowledge of the languages, but is concerned with a broadly based study of ancient society. Students may register for Honours, Specialization, Major, or Minor in Classical Studies; or Honours, Major, or Minor in Classical Philology or Minor in Classical Archaeology. Moreover, all courses in these programmes are open as electives to students in other departments.

Students must consult the Department Chairman to select the courses in their programme. For details on suggested programmes, see the Classics Brochure. Students are advised to consult the timetable for the campus where individual courses will be offered.

Students admitted to the Honours programme on or after June 1, 1977, are bound by the Honours requirements outlined in §16.2.4 of this calendar. Students who already had Honours status by June 1, 1977, continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Classical Studies

Year I
24 CLAS C211^3, C212^3, C240^3, C242^3, C261^3, C262^3, C266^3, C267^3
Years II and III
36 credits in Classical Studies over the two years, which must include the following courses:
15 CLAS C243^3, C320^6, C324^3, C325^3
The remaining 21 credits may be chosen from the following:
21 CLAS C230^3, C231^3, C241^3, C254^6, C280^6, C290^6, C322^3, C323^3, C344^6, C350^3, C351^3, C352^3, C353^3, C370^6, C446^6, C448^6 or C449^6, C470^3

NOTE: With special permission of the Department, students may take CLAS C261 and C262 as alternatives to CLAS C320.

60 BA Specialization in Classical Studies

Year I
24 CLAS C211^3, C212^3, C240^3, C242^3, C261^3, C262^3, C266^3, C267^3
Years II and III
36 credits in Classical Studies over the two years, which must include the following courses:
15 CLAS C243^3, C320^6, C324^3, C325^3
The remaining 21 credits may be chosen from the following:
21 CLAS C230^3, C231^3, C241^3, C254^6, C280^6, C290^6, C322^3, C323^3, C344^6, C350^3, C351^3, C352^3, C353^3, C370^6, C446^6, C448^6 or C449^6, C470^3

NOTE: With special permission of the Department, students may take CLAS C261 and C262 as alternatives to CLAS C320.

42 BA Major in Classical Studies

Year I
18 CLAS C211^3, C212^3, C240^3, C242^3, C261^3, C262^3
Year II
12 CLAS C266^3, C267^3, C320^6
Year III
12 Chosen from CLAS C243^3, C324^3, and C325^3; C350^3 and C351^3; C352^3 and C353^3; C254^6, C280^6, C290^6, C370^6, C470^3

NOTE: With special permission of the Department, students may take CLAS C261 and C262 as alternatives to CLAS C320.

24 Minor in Classical Studies

6 CLAS C211^3, C212^3
6 Chosen from CLAS C240^3, C241^3, C242^3
12 Chosen from CLAS C261^3 and C262^3, C266^3, C267^3, C320^6, C324^3, C325^3, C350^3, C351^3

72 BA Honours in Classical Philology

Year I
18 CLAS C240^3, C242^3, C280^6, C290^6
6 Chosen from CLAS C211^3 and C212^3, C320^6
Years II and III
12 CLAS C380^6 and C390^6
18 Credits of Latin selected from CLAS C490^6, C491^6, C492^6, C493^6, C494^6, C495^3

18 Credits of Greek selected from CLAS C480[6], C481[6], C482[6], C483[6], C484[6], C485[6]

42 BA Major in Classical Philology

Year I

18 CLAS C211[3], C212[3], C280[6], C290[6]

Year II

18 CLAS C240[3], C242[3], C380[6], C390[6]

Year III

6 *One advanced Latin or Greek course*

24 Minor in Classical Philology

24 CLAS credits in either Greek and/or Latin

24 Minor in Classical Archaeology

12 CLAS C266[3], C364[3], C365[3], C366[3]

3 CLAS C267[3] or C367[3]*

9 Chosen, with the approval of the Department, from courses in Classics or Art History, or from fieldwork courses in Archaeology offered by other institutions

**Students with credits for Art History C338[6] or C339[6] will be permitted to replace CLAS C267[3] or C367[3] with an elective approved by the Department.*

Group 1: Classical Studies

A. Literature

CLASSICS C211
The Beginnings of European Literature (Greek Literature) (3 credits)

CLASSICS C212
The Beginnings of European Literature (Latin Literature) (3 credits)

CLASSICS C320
Greek Drama: Theatre and Democracy in Fifth-Century Athens (6 credits)

CLASSICS C322
The Comic Art (3 credits)

CLASSICS C323
Roman Satire (3 credits)

CLASSICS C324
Homer and the Epic Hero I (3 credits)

CLASSICS C325
Homer and the Epic Hero II (3 credits)

B. History

CLASSICS C230
(also given as History C219)
The Ancient Near East I (3 credits)

CLASSICS C231
(also given as History C221)
The Ancient Near East II (3 credits)

CLASSICS C240
(also given as History C223)
Greek History I (3 credits)

CLASSICS C241
(also given as History C224)
Greek History II (3 credits)

CLASSICS C242
(also given as History C225)
Roman History (3 credits)

CLASSICS C243
(also given as History C226)
History of the Roman Empire (3 credits)

CLASSICS C344
Propaganda and Political Deception in Greek and Roman History (6 credits)

CLASSICS C345
(also given as History C324)
History of Byzantium, 602-1453 (6 credits)

CLASSICS C446
(also given as History C321)
Continuity and Change: An Intellectual History of the Late Roman Empire (6 credits)

CLASSICS C448
(also given as History C420)
Alexander the Great and Julius Caesar (6 credits)

CLASSICS C449
(also given as History C422)
Human Beginnings: The Stone Ages (6 credits)

C. Culture & Civilization

CLASSICS C254
Women in Classical Antiquity (6 credits)

CLASSICS C256
A Comparative Study of Judaic and Greek Traditions (6 credits)

CLASSICS C261
Introduction to Greek and Roman Mythology (3 credits)

CLASSICS C262
Myth and Mythmaking (3 credits)

CLASSICS C350
Greeks and the Afterlife (3 credits)

CLASSICS C351
Romans and the Afterlife (3 credits)

CLASSICS C352
Love, Hate and Friendship in the Classical World I (3 credits)

CLASSICS C353
Love, Hate and Friendship in the Classical World II (3 credits)

D. Archaeology

CLASSICS C266
An Introduction to Classical Archaeology (3 credits)

CLASSICS C267
The Archaeology of the Greek Bronze Age (3 credits)

CLASSICS C268
Meso-American Archaeology (3 credits)

CLASSICS C269
South American Archaeology (3 credits)

CLASSICS C364
Classical Greek Art and Archaeology (3 credits)

CLASSICS C365
Art and Archaeology of the Hellenistic Age (3 credits)

CLASSICS C366
Etruscan and Roman Republican Art and Archaeology (3 credits)

CLASSICS C367
Roman Imperial Art and Archaeology (3 credits)

Group 2: Classical Philology

A. Classical Greek
CLASSICS C280
Elementary Classical Greek (6 credits)

CLASSICS C380
Intermediate Classical Greek (6 credits)

CLASSICS C480
Greek Historians (6 credits)

CLASSICS C481
Plato (6 credits)

CLASSICS C482
Homer (6 credits)

CLASSICS C483
Greek Tragedians (6 credits)

CLASSICS C484
Greek Orators (6 credits)

CLASSICS C485
Greek Comedy (6 credits)

B. Latin
CLASSICS C290
Elementary Latin (6 credits)

CLASSICS C390
Intermediate Latin (6 credits)

CLASSICS C490
Roman Historians (6 credits)

CLASSICS C491
Cicero (6 credits)

CLASSICS C492
Roman Poetry I (6 credits)

CLASSICS C493
Roman Poetry II (6 credits)

CLASSICS C494
Late Latin (6 credits)

CLASSICS C495
Roman Comedy (3 credits)

CLASSICS C496
Roman Satire (3 credits)

Group 3: Special Courses (either Philology or Classical Studies)

CLASSICS C370
Selected Topics in Classics (6 credits)

CLASSICS C371
Selected Topics in Classics (6 credits)

CLASSICS C470
Advanced Topics in Classics (3 credits)

CLASSICS C471
Advanced Topics in Classics (3 credits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

CLASSICS C211
The Beginnings of European Literature (Greek Literature) (3 credits)
The Greek background of European literature. Selections from Homer, the Greek dramatists, Plato, and Aristotle's *Poetics*.

CLASSICS C212
The Beginnings of European Literature (Latin Literature) (3 credits)
The Roman background of European literature. Selections from Lucretius, Catullus, Cicero, Virgil, Horace, Ovid, Seneca, and Juvenal.

CLASSICS C230
(also given as History C219)
The Ancient Near East I (3 credits)
A survey of the political, social, economic, and intellectual history of the Ancient Near East, from the Neolithic age to the Indo-European invasions of the early 2nd Millennium, with special emphasis placed upon the problem of the emergence of civilization in Mesopotamia, Egypt, and the Indus valley. Ancient sources utilized wherever possible.

CLASSICS C231
(also given as History C221)
The Ancient Near East II (3 credits)
A survey of the political, social, economic, and intellectual history of the Ancient Near East, from the Indo-European invasion of the early 2nd Millennium to the establishment of the Persian Empire, with special emphasis placed upon the process of diffusion of civilization throughout the Near Eastern World, the creation of Egyptian, Mesopotamian, and Persian imperialism, and the development of Hebrew monotheism. Ancient sources utilized wherever possible.

CLASSICS C240
(also given as History C223)
Greek History I (3 credits)
A political, social, economic, and cultural history of Greece from Minoan-Mycenaean times to the end of Classical Greek civilization in the fourth-century B.C., with special emphasis placed upon fifth-century Athens.

CLASSICS C241
(also given as History C224)
Greek History II (3 credits)
A political, social, economic, and cultural history of the Greek World from Alexander the Great to the Roman conquest of Greece in 146 B.C. Although due attention will be paid to developments within the Hellenistic kingdoms and to the later Greek achievements in art, literature, science, philosophy, and religion, the process of fusion of Hellenism with the Orient - vital for the evolution of Judaism, Christianity, and Islam - will be extensively explored.

CLASSICS C242
(also given as History C225)
Roman History (3 credits)
A political, social, economic, and cultural history of Rome from the City's origins to the establishment of the Roman Empire under the Emperor Augustus.

CLASSICS C243
(also given as History C226)
History of the Roman Empire (3 credits)
Prerequisite: CLAS C242 (HIST C225); or permission of the instructor. A political, social, economic and cultural history of the Roman Empire from Augustus to Justinian the Great. Attention will be paid to the rise of Christianity and the continuity of Roman law and administration in both the eastern and western parts of the Late Roman Empire.
NOTE: Students who have received credit for CLAS C343 (HIST C320) may not take this course for credits.

CLASSICS C254
Women in Classical Antiquity (6 credits)
An examination of the social status and political influence of women in ancient Greece and Rome. Particular emphasis will be placed upon the apparent contradiction between the seemingly inferior position occupied by women in fifth-century Athens and the general enlightenment that characterized the epoch. Within this context, the influence of war upon the struggle for feminine emancipation , as seen through the eyes of tragedians, comic writers, philosophers, and historians, will be considered. Due attention will also be paid to the movement for feminine emancipation during the Late Roman Republic and Early Empire.

CLASSICS C256
A Comparative Study of Judaic and Greek Traditions (6 credits)
The course deals with the problems involved in the encounter of the Judaic and Greek traditions and is designed also for students of philosophy, theology, and history.
The end of the First Diaspora. Different currents (exclusiveness versus rapprochement) under Persian rule. Alexander legends. Maccabaean Hellenism. Anti-Semitism in Alexandria. The mutual influence of Judaism and Hellenism, as manifest in philosophical and religious writings, in symbols and customs. Their importance for the development of Western culture. The destruction of political Judaic independence and gradual intellectualization of Jewish life. The development of the Synagogue and the Tanaitic Academies.

CLASSICS C261
Introduction to Greek and Roman Mythology (3 credits)
This course will explore the nature of Classical Mythology and will examine the stories about the gods and the heroes of the Greeks and Romans, as found in their literature and culture.
NOTE: Students who have received credit for CLAS C260 may not take this course for credit.

CLASSICS C262
Myth and Mythmaking (3 credits)
An examination of the universal features of myth. Recurrent patterns of myth in primitive cultures. Near Eastern mythologies.
NOTE: Students who have received credit for CLAS C260 may not take this course for credit.

CLASSICS C266
An Introduction to Classical Archaeology (3 credits)
Archaeology as an art and as a science: towards a definition of archaeology. The history of classical archaeology. Field archaeology today, its tools and techniques: stratigraphy, excavation, and artifact analysis. The relationship of archaeology to Pre-History, History, Fine Arts, and Anthropology.
NOTE: Students who have received credit for CLAS C264/HIST C227 may not take this course for credits.

CLASSICS C267
The Archaeology of the Greek Bronze Age (3 credits)
The Bronze Age in Crete and Greece within the context of Near Eastern civilizations. Cnossos, Mycenae, Troy. Presentation classification, dating, and interpretation of selected artifacts.
NOTE: Students who have received credit for CLAS C265/HIST C229 may not take this course for credits.

CLASSICS C268
Meso-American Archaeology (3 credits)
An archaeological and anthropological study of the pre-Columbian peoples, cultures, and civilizations of ancient Mexico, Belize, Guatemala, and Honduras: the Olmec "mother culture" Izape, Monte Alban, Tlatilco, and Teotihuacan. The glory and the grandeur of the Maya. Form and iconography in meso-American art. From the Toltecs to the Aztecs. An aesthetic appreciation of pre-Columbian art and architecture. Current excavations, theories, and controversies among Americanists. Some work at the Montreal Museum of Fine Arts.

CLASSICS C269
South American Archaeology (3 credits)
An archaeological and anthropological study of the pre-Columbian peoples, cultures, and civilizations of ancient Peru, Columbia, Ecuador, Bolivia, and Chile: the "mother culture" of Chavin de Huantar. Valdivian pottery and stone-age (Jomon) Japan. The great empires of Peru before the Incas: Huari-Tiahuanaco, Chan Chan, and Chimu. Paracas, Nazca, and Mochica art. The "tears of the sun", and the coming of the Incas. Characteristics of Inca civilization. A survey of current excavations and research. Some work at the Montreal Museum of Fine Arts.

CLASSICS C280
Elementary Classical Greek (6 credits)
A course for those with no previous knowledge of Greek. Major emphasis will be placed on assisting the student in acquiring a reading command of the language. This course is designed not only for those interested in classical literature but also for students in the departments of History, Philosophy and Theology.

CLASSICS C290
Elementary Latin (6 credits)
A course for those with no previous knowledge of Latin. Major emphasis will be placed on assisting the student in acquiring a reading command of the language. Open to all students, but especially to those interested in classical languages, History, Philosophy, and Theology.

CLASSICS C320
Greek Drama: Theatre and Democracy in Fifth-Century Athens (6 credits)
Essentially, a study of the literary and artistic merits of the tragedies of Aeschylus, Sophocles, and Euripides, and the comedies of Aristophanes. The ritual origins of drama, mythical sources, and the growth of the dramatic form. Greek theatre as an expression of the democratic movement and of the intellectual revolution in fifth-century Athens.
NOTE: Students who have received credit for CLAS C220 may not take this course for credits.

CLASSICS C322
The Comic Art (3 credits)
An investigation into the evolution of comedy from our earliest literary sources to the present. The classical influence in later comic literature. Theories of comedy, ancient and

modern. Reading material will be drawn mainly from Greek and Roman dramatic literature.

NOTE: Students who have received credit for CLAS C222 may not take this course for credits.

CLASSICS C323
Roman Satire I (3 credits)

A study of the satiric genre, its birth and development in Roman literature and its connection with the early novel as seen in the English translations of the works of Horace, Juvenal, Petronius, Persius, Seneca, and Apuleius, with attention to the social climate and historical events of the period.

NOTE: Students who have received credit for CLAS C223 may not take this course for credit.

CLASSICS C324
Homer and the Epic Hero I (3 credits)

This course will deal mainly with the *Iliad* of Homer: its form, content, and meaning as an oral epic. Also investigated will be the hero in a warrior society; his privileges, responsibilities, and moral values.

NOTE: Students who have received credit for CLAS C224 may not take this course for credits.

CLASSICS C325
Homer and the Epic Hero II (3 credits)

This course will deal mainly with the *Odyssey* of Homer and the *Aeneid* of Virgil. A comparison will also be made with the concept of the hero in ancient and in modern literature.

NOTE: Students who have received credit for CLAS C225 may not take this course for credits.

CLASSICS C344
Propaganda and Political Deception in Greek and Roman History (6 credits)

Prerequisite: An Ancient History course. An examination of the relationship between political ideas and practice, with particular emphasis upon the slogans and false ideologies invented to justify war, peace, and the implementation of political and constitutional programmes by both radical and reactionary elements. Though inevitably the chief sources discussed will be literary, due attention will also be directed towards the value of numismatic, epigraphic, and artistic material as a means of winning over the mind of man.

CLASSICS C345
(also given as History C324)
History of Byzantium, 602-1453 (6 credits)

A survey of the transformation from the Late Roman Empire into the Byzantine commonwealth, and changes in economic and social conditions. Special attention is given to the reorganization of administrative and military structures, the relationship between Byzantium and its Balkan neighbours, the Arab conquest, and the rising importance of Asia Minor.

CLASSICS C350
Greeks and the Afterlife (3 credits)

A study of ideas of immortality as reflected in classical Greek literature. An examination of myths, mystery religions, and schools of philosophical thought. This literary survey will include readings translated from the works of Homer, Hesiod, Sophocles, Euripides, and Plato.

NOTE: Students who have received credit for CLAS C250 may not take this course for credit.

CLASSICS C351
Romans and the Afterlife (3 credits)

A study of the growth of early Roman customs connected with the supernatural. Burial practices and tomb paintings of the Etruscans. Popular Roman concepts of the underworld and the influence of Greek myth. The intellectual influence of Greek philosophy on later Roman religious thought as reflected in the works of Cicero and Lucretius. Religion and the patriotic ideal in the Augustan revival, as reflected in Virgil's *Aeneid*.

NOTE: Students who have received credit for CLAS C251 may not take this course for credit.

CLASSICS C352
Love, Hate, and Friendship in the Classical World I (3 credits)

The growth and the failure of human relationships were of intimate concern to men and women in the ancient world, as they are today. This course will investigate, in the literature of classical times, the evolving shape of human encounter in terms of three basic emotions: love, hate, and friendship. The theme "love" will be examined as expressed in the *Odyssey* of Homer, and especially in the love poetry of Greece and Rome.

NOTE: Students who have received credit for CLAS C252 may not take this course for credit.

CLASSICS C353
Love, Hate, and Friendship in the Classical World II (3 credits)

The theme "hate and revenge" will be seen in its most tragic form in the *Iliad* of Homer, and in the plays of the Greek dramatists. The third theme, "friendship", will be examined in its elemental form in the *Iliad* of Homer, and then in its urbane expression in the works of Plato and Cicero.

NOTE: Students who have received credit for CLAS C253 may not take this course for credit.

CLASSICS C364
Classical Greek Art and Archaeology (3 credits)

The art and architecture of the Greek world from 900 to 323 B.C. A study of the geometric, archaic, and classical periods with particular attention to painting (especially ceramics), sculpture, and architecture. The concept of "style" in archaeological dating. The works of Exekias and Douris, of Phidias and Praxiteles, and of Iktinos and Kallikrates as representative of the "ideal" in Classical Greek Art. Some work at the Montreal Museum of Fine Arts.

CLASSICS C365
Art and Archaeology of the Hellenistic Age (3 credits)

The art and architecture of the Greek world after the death of Alexander the Great. Hellenistic aestheticism, synthesis of oriental and Greek tradition in the visual arts. Development of motifs of anxiety and eroticism. Impact of Hellenistic art on Rome and Italy.

CLASSICS C366
Etruscan and Roman Republican Art and Archaeology (3 credits)

A survey of Neolithic, Bronze, and early

Iron Age cultures in Italy: Palafitte and Villanovans. The emergence of Etruscan civilization and the coming of the Greeks. The archaeological reconstruction of the city of Rome in the republican period. Some work at the Montreal Museum of Fine Arts.

CLASSICS C367
Roman Imperial Art and Archaeology
(3 credits)
Development of Roman art and architecture from Augustus to the late Roman Empire. Roads, fortifications, aqueducts, theatres, porticos, monuments, baths and basilicas. Pompeii and Herculaneum. Special emphasis on Roman Britain. From Roman to Romanesque.

CLASSICS C370
Selected Topics in Classics (6 credits)
Content and prerequisite will depend on the theme assigned by the Department.

CLASSICS C371
Selected Topics in Classics (6 credits)
A student may repeat CLAS C370, provided the content is different, by registering for credits under CLAS C371.

CLASSICS C380
Intermediate Classical Greek (6 credits)
Prerequisite: CLAS C280, or equivalent. Further work towards the acquisition of a reading command of the language. Readings from works such as Plato's *Apology* and *Crito*, Xenophon's *Anabasis* and the *New Testament*.

CLASSICS C390
Intermediate Latin (6 credits)
Prerequisite: CLAS C290, or equivalent. Further work towards the acquisition of a reading command of the language. Selections from Cicero, Catullus, and Pliny, or Seneca.

CLASSICS C446
(also given as History C321)
Continuity and Change: An Intellectual History of the Late Roman Empire
(6 credits)
Prerequisite: One course on the ancient or the medieval world. A study of the main intellectual and social forces in the late Roman Empire that contributed most significantly to the formation of European culture. Among the topics treated will be Neo-Platonism, Gnosticism, the Greek and Roman systems of education, government and private welfare policies, mystery religions, late Judaism, early Christianity, the religious policy of pagan and Christian emperors, contemporary art and architecture.
NOTE: Students who have received credit for CLAS C346 may not take this course for credits.

CLASSICS C448
(also given as History C420)
Alexander the Great and Julius Caesar
(6 credits)
Prerequisite: An Ancient History course. A course devoted to the careers of two of the most notable and influential figures in Ancient History, seeking to discover them as they were, the worlds which they conquered, their aims, and their achievements.

CLASSICS C449
(also given as History C422)
Human Beginnings: The Stone Ages
(6 credits)
The origins of man, and man's place in evolution and in nature. Man, the toolmaker: australopithecines, homo habilis, homo erectus, Peking man, Java man, Solo man, and others. The fossil evidence and taxonomic problems. Man, the hunter: meat-eating, intelligence, and sexual differentiation. Territoriality and aggression. The struggle for existence and the survival of the fittest: Darwinism, Marxism, and sociology.
Palaeolithic cultures: Abbevillean, Acheulean, Clactonian, and Mousterian. Neanderthal and Cro-Magnon mixtures. Man, the artist. From Perigordian to Magdalenian. Epipalaeolithic and Mesolithic societies. The Neolithic revolution. Stone Age cultures of today. Importance and relevance of prehistory. Homo ludens.

CLASSICS C470
Advanced Topics in Classics (3 credits)
This course treats advanced topics of interest in Classics. Content and prerequisite will depend on the theme assigned by the Department.

CLASSICS C471
Advanced Topics in Classics (3 credits)
A student may repeat CLAS C470, provided the content is different, by registering for credits under CLAS C471.

CLASSICS C480
Greek Historians (6 credits)
Prerequisite: CLAS C380, or equivalent. Selections from Herodotus, Thucydides, and others.

CLASSICS C481
Plato (6 credits)
Prerequisite: CLAS C380, or equivalent. Selections from *The Republic*, and other major dialogues.

CLASSICS C482
Homer (6 credits)
Prerequisite: CLAS C380, or equivalent. Extensive readings from the two epics in Greek. Both works will also be studied in their entirety in English.

CLASSICS C483
Greek Tragedians (6 credits)
Prerequisite: CLAS C380, or equivalent. Representative dramas from Aeschylus, Sophocles, and Euripides.

CLASSICS C484
Greek Orators (6 credits)
Prerequisite: CLAS C380, or equivalent. Selections from Demosthenes, and other Attic orators.

CLASSICS C485
Greek Comedy (6 credits)
Prerequisite: CLAS C380, or equivalent. Plays of Aristophanes and Menander.

CLASSICS C490
Roman Historians (6 credits)
Prerequisite: CLAS C390, or equivalent. Selections from Sallust, Livy, and Tacitus.

CLASSICS C491
Cicero (6 credits)
Prerequisite: CLAS C390, or equivalent. Careful examination of selections from the letters, and the oratorical and philosophical works.

CLASSICS C492
Roman Poetry I (6 credits)
Prerequisite: CLAS C390, or equivalent. Selections from Horace and Virgil.

CLASSICS C493
Roman Poetry II (6 credits)
Prerequisite: CLAS C390, or equivalent. Selections from Ovid and Lucretius.

CLASSICS C494
Late Latin (6 credits)
Prerequisite: CLAS C390, or equivalent. A study of selected texts from the works of patristic and medieval writers. This course is directed especially to students of History, Philosophy, and Theology.

CLASSICS C495
Roman Comedy (3 credits)
Prerequisite: CLAS C390, or equivalent. Selections from Plautus and Terence.

CLASSICS C496
Roman Satire II (3 credits)
Prerequisite: CLAS C390, or equivalent. Selections from Juvenal, Petronius, Persius, and Seneca.

31.070 Communication Studies

Acting Chairman
L. CRYSLER, *Associate Professor*

Professors
J. BUELL
M. MALIK
J.E. O'BRIEN

Associate Professors
C.J. FISCHER
M. GERVAIS
W. GILSDORF
T. KOVATS
N. METALLINOS
G. VALASKAKIS

Assistant Professors
D. DINIACOPOULOS
T. GECSEI
B. LEWIS
R. MILLER
D. MURPHY

Lecturer
M. CHARLAND

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

The Department offers two programmes of study, and two others jointly with Journalism.

a) *Bachelor of Arts, Specialization in Communication Studies:* consisting of 60 credits in Communication Studies and 30 credits from electives outside the Department.

b) *Bachelor of Arts, Major in Communication Studies:* consisting of 42 credits in Communication Studies and 48 credits from electives outside the Department.

c) *Bachelor of Arts, Specialization in Communication and Journalism:* consisting of 60 credits in Communication and Journalism courses and 30 credits from electives outside Communication and Journalism.

d) *Bachelor of Arts, Specialization in Broadcast Journalism:* consisting of 60 credits in Communication and Journalism courses and 30 credits from electives outside Communication and Journalism. This programme was first offered in 1981-82.

Elective credits are understood as courses taken in other departments or faculties of the University. Credits in Communication Studies or Journalism, or in Cinema (Faculty of Fine Arts) may not be used in lieu of electives.

200-level courses are normally taken in first year, 300-level courses in second year, 400-level courses in third year.

Written work may be required in English for courses in Journalism; please consult the Department.

60 BA Specialization in Communication Studies

18 COMS C230^3, C240^3, C255^3, C275^3, C278^3, C284^3
12 Chosen from courses in Group 1
12 Chosen from courses in Group 2
6 Chosen from courses in Group 3
12 Chosen from courses in Group 1 or 2, or, with the approval of the Department, in Group 3 or cognate courses outside the Department.

42 BA Major in Communication Studies

18 COMS C230^3, C240^3, C255^3, C275^3, C278^3, C284^3
6 Chosen from courses in Group 1
6 Chosen from courses in Group 2
6 Chosen from courses in Group 3
6 Chosen from courses in Group 1 or 2

60 BA Specialization in Communication and Journalism

NOTE: Students must meet the admission requirements of both the Department of Communication Studies and the Journalism programme. This programme is designed to prepare graduates for the English-language media.

Year I
12 JOUR C201^6, C205^3, COMS C240^3
6 Chosen from COMS C275^3, C278^3, C284^3

Year II and III
12 JOUR C301^6, C400^3, C402^3 or C403^3
6 Chosen from Communication Group 1 courses
6 Chosen from Communication Group 2 courses
18 Additional Communication and/or Journalism courses. With the approval of the Chairman of the Communication Studies Department or the Director of the Journalism Programme, 6 of these credits may be cognate course(s) outside Communication and Journalism. A maximum of 6 of these credits may be from Communication Group 3 courses.

60 BA Specialization in Broadcast Journalism

NOTE: Students must meet the admission requirements of both the Department of Communication Studies and the Journalism programme. This programme is designed to prepare graduates for

the English-language media.
Year I
15 JOUR C201[6], COMS C240[3], C278[3], C284[3]
3 Chosen from JOUR C205[3], C210[3]
Year II
9 JOUR C300[3], C306[3], C310[3]
6 Chosen from COMS C378[6], C381[6], C387[6]
3 Chosen from COMS C340[3], C342[3]
Year III
9 JOUR C415[3], C420[3], COMS C446[3]
15 Additional Communication and/or Journalism courses. With the approval of the Chairman of the Communication Studies Department or the Director of the Journalism Programme, 6 of these credits may be cognate course(s) outside Communication and Journalism. With approval, a maximum of 6 of these credits may be from Communication Group 3 courses.

Department Objectives

The Department of Communication Studies was founded in 1965 (as Communication Arts), the first at a Canadian university.

The Department's programmes are generalist in nature and take a *broad approach* to the study of media and communication in today's world. Of primary concern is a humanistic understanding, a value-oriented appreciation of the role of mass media in society. Programmes intend to develop the student's critical judgment and creative potential by both theoretical and practical work.

Each of the Department's programmes has three basic components: 1) a humanities and liberal arts emphasis (Group 1 courses); 2) a social-science and research emphasis (Group 2 courses); 3) a creative laboratory-experience emphasis (Group 3 courses).

Graduates of the Department's pro rammes have found careers in: 1) Radio, Television, Broadcast Journalism; 2) Film, other media industries, media departments of business; 3) Small media firms and free-lance media work; 4) Educational institutions (teaching, A/V services); 5) Advertising, Public Relations, Promotion, Marketing, Sales, Information, etc.; 6) Advanced studies and research; 7) Other professions, and government services.

Facilities

The Department has one television-film studio equipped with 3/4" colour videocassette recording and editing facilities, two 3/4" colour video portapak units, 10 B/W 1/2" portapaks; 7 x 16mm film units, 16mm sync and editing units, and complete super 8mm sync sound/film units; photographic laboratories; a holographic and laser laboratory; multiple sound facilities; a research studio for the measurement of visual and audio-information loads, an electronic and electromechanical programmer for multi-media use; and a Learning Centre with audio-slide-film-video terminals for independent study.

Department Admission Requirements

The number of students that can be accommodated every year in our department is physically limited by the room available in labs, the amount of equipment and the number of professors. Approximately 120 students are admitted every year, giving a student population of about 300 in the three years of our undergraduate programme. Applications consistenly outnumber the department's capacity. For this reason, the Department of Communication Studies has a distinct admission procedure, in addition to the normal admission process of Concordia University.

The Department is prepared to receive applications as early as January, and to arrange interviews, for the following academic year. Interested candidates should obtain information about admission requirements of Communication Studies by contacting the Admissions Committee, Department of Communication Studies, Loyola Campus, Concordia University, 7141 Sherbrooke Street West, Montreal, Quebec. H4B 1R6. Telephone: (514) 482-0320, ext. 276.

Diploma in Communication Studies

The Department also offers a one-year diploma programme for students who have completed their undergraduate degree in another field. Detailed information on the programme is given in the University's Calendar of Graduate Studies.

Group 1

COMMUNICATION STUDIES C305
Advanced Script-Writing for Film (6 credits)

COMMUNICATION STUDIES C306
Documentary Film (3 credits)

COMMUNICATION STUDIES C307
Hollywood in the Silent Era (3 credits)

COMMUNICATION STUDIES C308
The German Expressionist Movement (3 credits)

COMMUNICATION STUDIES C309
The Revolutionary Soviet Cinema

COMMUNICATION STUDIES C310
The Hollywood Genres (3 credits)

COMMUNICATION STUDIES C311
The Classic French Cinema (3 credits)

COMMUNICATION STUDIES C312
La Nouvelle Vague (3 credits)

COMMUNICATION STUDIES C313
Ingmar Bergman and the Scandinavians (3 credits)

COMMUNICATION STUDIES C314
The Italians, from Neo-Realism to Today (3 credits)

COMMUNICATION STUDIES C315
Shakespeare in the Cinema (3 credits)

COMMUNICATION STUDIES C316
The Canadian Cinema (3 credits)

COMMUNICATION STUDIES C320
History of Communication Media Carriers I (3 credits)

COMMUNICATION STUDIES C321
History of Communication Media Carriers II (3 credits)

COMMUNICATION STUDIES C322
Media and Media Culture (3 credits)

COMMUNICATION STUDIES C323
Media Theory (3 credits)

COMMUNICATION STUDIES C330
Advanced Script-Writing for Television (6 credits)

COMMUNICATION STUDIES C331
Documentary Television (3 credits)

COMMUNICATION STUDIES C417
Film Ideas (3 credits)

COMMUNICATION STUDIES C435
Documentary Film and Television Genres I (3 credits)

COMMUNICATION STUDIES C436
Documentary Film and Television Genres II (3 credits)

COMMUNICATION STUDIES C437
Seminar in Media Forecast (3 credits)

COMMUNICATION STUDIES C444
Television Aesthetics I (3 credits)

COMMUNICATION STUDIES C445
Television Aesthetics II (3 credits)

COMMUNICATION STUDIES C446
Ethics and Responsibility in Broadcast Journalism (3 credits)

Group 2
COMMUNICATION STUDIES C340
Seminar in Public Affairs Radio (3 credits)

COMMUNICATION STUDIES C342
Seminar in Public Affairs Television (3 credits)

COMMUNICATION STUDIES C351
Communication Research (6 credits)

COMMUNICATION STUDIES C360
Mass Communication (3 credits)

COMMUNICATION STUDIES C361
Seminar in Propaganda (3 credits)

COMMUNICATION STUDIES C362
Psychology of Communication (3 credits)

COMMUNICATION STUDIES C363
Inter-Cultural Communication (6 credits)

COMMUNICATION STUDIES C364
Communication and the Canadian North (3 credits)

COMMUNICATION STUDIES C465
Organizational and Political Communication (6 credits)

COMMUNICATION STUDIES C466
Media and Development (6 credits)

COMMUNICATION STUDIES C467
Broadcasting Policy in Canada (6 credits)

COMMUNICATION STUDIES C470
Advertising and the Consumer Society (3 credits)

COMMUNICATION STUDIES C471
Public Relations: Principles and Problems (3 credits)

COMMUNICATION STUDIES C490
Communication Research Laboratory (6 credits)

Group 3
COMMUNICATION STUDIES C374
Visual Dynamics II (6 credits)

COMMUNICATION STUDIES C375
Visual Dynamics III (6 credits)

COMMUNICATION STUDIES C378
Seminar and Practicum in Sound II (6 credits)

COMMUNICATION STUDIES C381
Seminar and Practicum in Film II (6 credits)

COMMUNICATION STUDIES C387
Seminar and Practicum in Television II (6 credits)

COMMUNICATION STUDIES C475
Visual Dynamics IV (6 credits)

COMMUNICATION STUDIES C481
Seminar and Practicum in Film III (6 credits)

COMMUNICATION STUDIES C487
Seminar and Practicum in Television III (6 credits)

WHEN OFFERED, THE FOLLOWING COURSES WILL BE DESIGNATED AS GROUP 1 or 2 or 3 COURSES

COMMUNICATION STUDIES C300
Selected Topics in Communication Studies (3 credits)

COMMUNICATION STUDIES C301
Selected Topics in Communication Studies (3 credits)

COMMUNICATION STUDIES C302
Selected Topics in Communication Studies (3 credits)

COMMUNICATION STUDIES C303
Selected Topics in Communication Studies (3 credits)

COMMUNICATION STUDIES C440
Advanced Topics in Communication Studies (3 credits)

COMMUNICATION STUDIES C441
Advanced Topics in Communication Studies (3 credits)

COMMUNICATION STUDIES C442
Advanced Topics in Communication Studies (3 credits)

COMMUNICATION STUDIES C443
Advanced Topics in Communication Studies (3 credits)

COMMUNICATION STUDIES C450
Advanced Topics in Broadcast Journalism (3 credits)

COMMUNICATION STUDIES C451
Advanced Topics in Broadcast Journalism (3 credits)

COMMUNICATION STUDIES C496
Honours Project I (3 credits)

COMMUNICATION STUDIES C497
Honours Project II (3 credits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

COMMUNICATION STUDIES C230
Basic Writing for the Media (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. This course is designed to provide knowledge of and practice in the special written forms and formats utilized by the media. Assignments are practically oriented toward possible student productions.

COMMUNICATION STUDIES C240
Communication Theory (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Through lectures, discussions, and selected readings

from the works of key theoreticians, this course introduces students to major approaches to the understanding of the process of communication.

COMMUNICATION STUDIES C255
Communication Analysis (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. General and detailed analysis of various information complexes; e.g., museums, galleries, exhibitions, countrysides, landscapes, city streets, highways, department stores, churches, etc., from the point of information values used to influence future prospective audiences of films, television programmes, or exhibition and theatre visitors. The basic values of light, space, sound, picture, words, and exhibit structures will be explored through individual student projects in real locations. Students will work on individual projects under the supervision of the directing professor. Tutorial course.

COMMUNICATION STUDIES C275
Visual Dynamics I (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. In this course, students are led to discover fundamental laws which underlie visual representation. The overall method consists of basic experiments in vision and perception: to explore distances, planes, tones, colour, light, etc. Photography is the medium by which these experiments are recorded for observation and discussion. Lectures and Laboratory: average 6 hours per week.

NOTE: Students are required to bear some of the cost of materials.

COMMUNICATION STUDIES C278
Seminar and Practicum in Sound I (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. This course is designed to provide the student with a basic working knowledge of audio systems both natural and electronic, to understand the various affective and psychological qualities of sound, and how sound may be structured into imaginative aural forms. Lectures and Laboratory: average 6 hours per week.

NOTE: Students are required to bear some of the cost of materials.

COMMUNICATION STUDIES C284
Seminar and Practicum in Film and Video I (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. A practical approach to an understanding of the common elements of film and video media, and of the specific differences inherent in their effective use. Course methodology includes lectures, screenings, readings, portapak video and Super 8mm film productions. Lectures and Laboratory: average 6 hours per week.

NOTE: Students are required to bear some of the costs of materials.

COMMUNICATION STUDIES C300
Selected Topics in Communication Studies (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. Content will depend on the theme designated by the Department.

COMMUNICATION STUDIES C301
Selected Topics in Communication Studies (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. Students who have received credit for COMS C300 may register for COMS C301 provided the subject matter is different.

COMMUNICATION STUDIES C302
Selected Topics in Communication Studies (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. Content will depend on the theme designated by the Department.

COMMUNICATION STUDIES C303
Selected Topics in Communication Studies (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. Students who have received credit for COMS C302 may register for COMS C303 provided the subject matter is different.

COMMUNICATION STUDIES C305
Advanced Script-Writing for Film (6 credits)

Prerequisite: Registration in a Communication Studies programme; submission of a qualifying assignment by August 1st and subsequent approval of instructor. This assignment, which varies from year to year, is intended to test the student's writing ability and creative imagination. A practical course in writing film-drama: story construction and plotting, scene-making, characterization and character development, dialogue, dramatic continuity, timing, pacing, rhythm, suspense, and creative criticality. Many of these fictional and dramatic techniques will, as the occasion arises, be applied to non-fictional scripts as well. The method consists of lecture, discussion, demonstration, critique. Assignments are on-going.

COMMUNICATION STUDIES C306
Documentary Film (3 credits)

Prerequisite: Open to all University students with at least second-year standing, with permission of the Department. A survey of the documentary film field from 1895 until today, with an examination of major styles (Romantic, Realistic, Expressionistic, Avant-Garde, etc.) in the works of significant documentary filmmakers. The method consists of lecture, screenings, critique, and discussion.

NOTE: COMS C307 through C316 are offered on a three-year cycle.

COMMUNICATION STUDIES C307
Hollywood in the Silent Era (3 credits)

Prerequisite: Open to all University students with at least second-year standing. In-depth study of the 60-year career of Chaplin, with special emphasis on the great early comics (Keaton, etc.); Hollywood and the birth of the movies: D.W.Griffith, von Stroheim.

COMMUNICATION STUDIES C308
The German Expressionist Movement (3 credits)

Prerequisite: Open to all University students with at least second-year standing. Lang, Murnau, Pabst, etc., in Germany, and in their later Hollywood careers. The German cinema of the '20's; the Expressionists. Integration with the socio-cultural climate of the pre-Hitler days.

COMMUNICATION STUDIES C309
The Revolutionary Soviet Cinema (3 credits)
Prerequisite: Open to all University students with at least second-year standing. The Soviet Formalists of the '20's: Eisenstein, Pudovkin, Dovzenko. Film and revolution; Marxist aesthetics. The later evolution of the Soviet cinema.

COMMUNICATION STUDIES C310
The Hollywood Genres (3 credits)
Prerequisite: Open to all University students with at least second-year standing. Concentration on specific genres and directors of Hollywood in its golden era ('30's, '40's). The aesthetics of art and the mass audience.

COMMUNICATION STUDIES C311
The Classic French Cinema (3 credits)
Prerequisite: Open to all University students with at least second-year standing. Before the Nouvelle Vague, the great French cinema of Renoir, Clair, Ophuls, Cocteau.

COMMUNICATION STUDIES C312
La Nouvelle Vague (3 credits)
Prerequisite: Open to all University students with at least second-year standing. Truffaut, Godard, Chabrol, Resnais, etc., from their New-Wave days to the present. Bresson. The new cinema: consciousness, ideology, art.

COMMUNICATION STUDIES C313
Ingmar Bergman and the Scandinavians (3 credits)
Prerequisite: Open to all University students with at least second-year standing. In-depth study of Bergman. The entire context, from the great silent period (Sjostrom, Stiller, etc.) to today (Widerberg, etc.).

COMMUNICATION STUDIES C314
The Italians, from Neo-Realism to Today (3 credits)
Prerequisite: Open to all University students with at least second-year standing. The neo-realist movement; Rossellini, De Sica, Visconti, Fellini, Antonioni, Pasolini, Bertolucci, Wertmuller.

COMMUNICATION STUDIES C315
Shakespeare in the Cinema (3 credits)
Prerequisite: Open to all University students with at least second-year standing. *Hamlet, Macbeth, Othello,* etc., as seen in the works of Welles, Olivier, the Russians. A study of the plays and their cinematic expressions: Shakespeare's world via cinema.

COMMUNICATION STUDIES C316
The Canadian Cinema (3 credits)
Prerequisite: Open to all University students with at least second-year standing. The aesthetic, economic, sociopolitico-cultural dimensions of feature films in Canada. Course conducted in collaboration with Canadian film directors, producers, actors, critics.

COMMUNICATION STUDIES C317
Film Studies (3 credits)
Prerequisite: Open to all University students with at least second-year standing. A student may repeat one of the foregoing courses (C307 to C316), provided that the content is different, by registering for credits under COMS C317.

The following courses, offered by the Cinema and Photography Department of the Faculty of Fine Arts, are open to Communication Studies students:

CINEMA C211, C212, C321, C322, C328, C422, C423, C426, C427. *Communication Studies students may take no more than 6 credits from this group.*

COMMUNICATION STUDIES C320
History of Communication Media Carriers I (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Selected segments from the history of painting, architecture, drama, music, related to their possible use in media productions, and to the contemporary philosophy of communication. Readings and viewings of major styles, artworks, and authors in a self-instructional, programmed course.

COMMUNICATION STUDIES C321
History of Communication Media Carriers II (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Selected segments from the history of photography, cinematography, radio, and television, media design related to the possible use in media productions, and to the contemporary philosophy of communication. Readings and viewings of major styles, artworks, and authors in a self-instructional, programmed course.

COMMUNICATION STUDIES C322
Media and Media Culture (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Media and their impact on people and society, in order of historical appearance: literacy, printing, the still photograph, cinema, radio, television. The growth of the technologies of work, movement, education, thought, and social organization. The problems of man in a technological environment.
NOTE: Students who have received credit for COMS C304 may not take this course for credits.

COMMUNICATION STUDIES C323
Media Theory (3 credits)
Prerequisite: COMS C322. Analysis of the historical and current evidence in an attempt to understand what media are, what they do of themselves, their common characteristics, cumulative patterns and necessary effects. Are there inherent "laws" of media? Emphasis is on the intellectual faculty as manifested in society's response to media.
NOTE: Students who have received credit for COMS C304 may not take this course for credits.

COMMUNICATION STUDIES C330
Advanced Script-Writing for Television (6 credits)
Prerequisite: Registration in a Communication Studies programme; submission of a qualifying assignment by August 1 and subsequent approval of instructor. This assignment, which varies from year to year, is intended to test the student's writing ability and creative imagination. Anatomy of script; audio-visual components and functions; TV drama, comedy, documentary, docu-drama.

The creative process: plot development, character and dialogue; uses of tension, conflict, "tricks of the trade"; professional attitude and discipline vis-a-vis the market. Lectures, demonstrations, group discussions, and script projects.

COMMUNICATION STUDIES C331
Documentary Television (3 credits)

Prerequisite: Open to all University students with at least second-year standing, with permisssion of the Department. A survey of the documentary television field from its beginning until today, with an examination of characteristic styles and forms (informative, biographical, current events, compilative, etc.). The method consists of lecture, video example, critique, and discussions.

COMMUNICATION STUDIES C340
Seminar in Public Affairs Radio (3 credits)

Prerequisite: Registration in Communication Studies or Journalism programme. The study and analysis of public affairs radio, with special emphasis given to the styles, form, content, and trends of contemporary programming.

COMMUNICATION STUDIES C342
Seminar in Public Affairs Television (3 credits)

Prerequisite: Registration in Communication Studies or Journalism programme. The study and analysis of public affairs television, with special emphasis given to the styles, form, content, and trends of contemporary programming.

COMMUNICATION STUDIES C351
Communication Research (6 credits)

Prerequisite: COMS C255 and permission of the Department. An examination of the aids for information-impact measurements, demonstrated on communication media carriers. Testing will be conducted on information complexes previously analyzed; e.g., photographs, advertisements, film segments, television programme sequences, exhibitions, urban environments, and open-country landscapes. The main emphasis of learning is on the methodology of tests, diagnoses, and interpretations of results for practical media productions. A biometrical and biotelemetrical approach is used for testing. Each student will work on individual projects during the year. Tutorial course.

NOTE: Students who have received credit for COMS C350 may not take this course for credits.

COMMUNICATION STUDIES C360
Mass Communication (3 credits)

Prerequisite: Priority to students for whom it is a degree requirement. The course will examine the nature and forms of Mass Communication, the social sources and uses of Mass Communication, its psychology, audiences, and effects. The ethics of Mass Communication will also be discussed. Through guest lecturers from the various media and readings of contemporary analyses/critiques, issues such as media ownership and access, government and self-regulation, technological implications, media accountability, etc., will be raised.

COMMUNICATION STUDIES C361
Seminar in Propaganda (3 credits)

Prerequisite: Second-year standing; priority will be given to students in Communication Studies programmes. The aim of this course is to recognize the orchestration of the elements of propaganda in media, and to develop the means to deal with it. Course methodology includes lectures, discussions, and projects.

COMMUNICATION STUDIES C362
Psychology of Communication (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. The objectives of the course are to provide the learner with: 1) an overview of psychological processes active in the communicative act; 2) the opportunity to explore a single media area in depth, either independently or in a small group. Through a variety of formats, topic areas such as the following are explored: perception and information processing, language development, areas of para-psychology related to communication, influences on attitude/behaviour, verbal/non-verbal codes, meaning, etc.

COMMUNICATION STUDIES C363
Inter-Cultural Communication (6 credits)

Prerequisite: Open only to students in Communication Studies programmes. The course examines the relationship among value orientations, culturally-determined behaviour, and the communication process. Theory, research, and projects focus on factors influencing inter-personal and mediated communication across subcultural and cultural boundaries.

COMMUNICATION STUDIES C364
Communication and the Canadian North (3 credits)

Prerequisite: Open to all University students with at least second-year standing, with permission of the Department. The course examines the historical context of Eskimo-White interaction in the Arctic; the role that media technology has played in Northern development and social change; the current research and experimental approaches to communication problems in the Canadian North.

COMMUNICATION STUDIES C374
Visual Dynamics II (6 credits)

Prerequisite: COMS C275, and permission of the Department. This course involves both theory and fieldwork in photographing man-made environments; e.g., the city, using natural light. The student will acquire an understanding of the problems of distance and direction by means of lectures, critiques of fieldwork, and individual consultation.

NOTE: Students are required to possess certain recommended equipment and to bear some of the costs of materials.

COMMUNICATION STUDIES C375
Visual Dynamics III (6 credits)

Prerequisite: COMS C374, and permission of the Department. A study of the development of visual artifacts and media in the search for an increasingly adequate mimesis of persons, situations, and meanings. The course comprises both the practical and the theoretical aspects of the visual image, historically and currently, and examines the assumptions underlying the quest for the auto-communicative image. Lectures and Laboratory: average, 6 hours per week.

NOTE:Students are required to bear some of the cost of materials.

COMMUNICATION STUDIES C378
Seminar and Practicum in Sound II (6 credits)

Prerequisite: COMS C278 and permission of the Department. This course gives the student a knowledge of the basic disciplines necessary for constructing aural message forms from the simplest to the most complex; also, experience in the various technologies required to apply these aural forms to radio, film, television, etc. Students will prepare, produce, and direct, individually and in teams, a number of projects. Lectures and Laboratory: average, 6 hours per week.

NOTE: Students are required to bear some of the cost of materials.

COMMUNICATION STUDIES C381
Seminar and Practicum in Film II (6 credits)

Prerequisite: Above-average standing in COMS C284 and permission of the Department. This course involves an examination of the communicative process through the medium of film. Areas covered include scripting, directing, and shooting, with both silent and sync-sound equipment. Productions are designed to test the students' theoretical knowledge and give practical experience in the craft of film-making. Lectures and Laboratory: average, 6 hours per week.

NOTE: Students are required to bear some of the cost of materials.

COMMUNICATION STUDIES C387
Seminar and Practicum in Television II (6 credits)

Prerequisite: COMS C284 and permission of the Department. A study of the components related to the creation of the television documentary and short-feature programme in terms of the theoretical possibilities inherent in the medium. Student productions in the two genres, from idea-stage through completed videotape, constitute the laboratory section of the course. Lectures and Laboratory: average, 6 hours per week.

NOTE: Students are required to bear some of the cost of materials.

COMMUNICATION STUDIES C417
Film Ideas (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. Seminar using film criticism to focus on aesthetic/cultural dimension of present trend-setting films, and to explore students' sensibility in context of contemporary culture. Methodology includes viewings, discussions, written critiques, critical/aesthetic readings.

COMMUNICATION STUDIES C435
Documentary Film and Television Genres I (3 credits)

Prerequisite: COMS C306, C331, or permission of the Department. Survey of genres in documentary film and television such as: biographical, industrial, travelogue, nature, scientific, training, educational, children's films and TV programmes. Examples from Canada, USA, Europe.

COMMUNICATION STUDIES C436
Documentary Film and Television Genres II (3 credits)

Prerequisite: COMS C435. An in-depth study of one of the film and television genres surveyed in COMS C435. Tutorial course.

COMMUNICATION STUDIES C437
Seminar in Media Forecast (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. This course examines trends in film, sound, television, and other media for future applications. The course includes theory of media effects. Representatives from industry and government are invited to discuss future trends in media utilization. The course demands a theoretical and practical model for original or novel use of a medium or media mix.

COMMUNICATION STUDIES C440
Advanced Topics in Communication Studies (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. This course focuses on advanced topics of interest in Communication Studies. Content will depend on the theme designated by the Department.

COMMUNICATION STUDIES C441
Advanced Topics in Communication Studies (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. Students who have received credit for COMS C440 may register for COMS C441 provided the subject matter is different.

COMMUNICATION STUDIES C442
Advanced Topics in Communication Studies (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. This course focuses on advanced topics of interest in Communication Studies. Content will depend on the theme designated by the Department.

COMMUNICATION STUDIES C443
Advanced Topics in Communication Studies (3 credits)

Students who have received credit for COMS C442 may register for COMS C443 provided the subject matter is different.

COMMUNICATION STUDIES C444
Television Aesthetics I (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. Television in contemporary culture is examined critically as an art form, not simply as a transmission device. Aspects of television aesthetics in the Canadian experience are highlighted. Extensive individual viewing and analysis in the Department's Learning Centre.

COMMUNICATION STUDIES C445
Television Aesthetics II (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. A continuation of COMS C444 for students who have done superior work and who wish to research particular genres or a particular television series in depth. Tutorial. Assignments include critical reviews, an oral report and a written paper.

COMMUNICATION STUDIES C446
Ethics and Responsibility in Broadcast Journalism (3 credits)

Prerequisite: Third-year standing in a Communication Studies or Journalism programme. This course considers broadcast journalism in the context of philosophical and ethical principles. It aims to assess realistical-

ly the responsibilities of broadcast reporting, news analysis and to examine critically the role of broadcast journalism in society.

COMMUNICATION STUDIES C450
Advanced Topics in Broadcast Journalism
(3 credits)
Prerequisite: Third-year standing in a Communication Studies or Journalism programme. Content will depend on the special theme designated each year.

COMMUNICATION STUDIES C451
Advanced Topics in Broadcast Journalism
(3 credits)
Students who have received credit for COMS C450 may register for COMS C451 provided the subject matter is different.

COMMUNICATION STUDIES C465
Organizational and Political Communication (6 credits)
Prerequisite: Open to all University students with third-year standing and permission of the Department. After initial defining and relating of organizational and political communication, basic principles and media forms of each are isolated. Then, consideration of the learning objectives of seminar participants will lead to the further exploration of such topics as: formal/informal patterns of communication, components of communication networks, internal/external communication of organizations, interrelations between media and politics, role of media in creating national unity, organized campaigning, etc. Activities include: readings and discussions; field study and analysis; research and presentation; guest lectures.

COMMUNICATION STUDIES C466
Media and Development (6 credits)
Prerequisite: Open to all University students with at least third-year standing, with permission of the Department. The course considers the relationship among media, social and cultural change, and economic development. Theory, research, and projects focus on media's possible effect on and usefulness to underdeveloped areas.

COMMUNICATION STUDIES C467
Broadcasting Policy in Canada (6 credits)
Prerequisite: Open to all University students with third-year standing and permission of the Department. This course acquaints the student with the historical development of broadcasting and broadcasting legislation in Canada. It also examines the nature of the two major broadcasting influences on the Canadian national system: Great Britain and the United States. It covers the present state of broadcasting policy in Canada, its goals and problems, and explores alternative solutions.

COMMUNICATION STUDIES C470
Advertising and the Consumer Society
(3 credits)
Prerequisite: Permission of the Department; priority will be given to students in Communication Studies programmes. Advertising as an economic force is examined from a mass-media focus. Communication strategies are analyzed. A promotional campaign is prepared and presented as a team project.

COMMUNICATION STUDIES C471
Public Relations: Principles and Problems
(3 credits)
Prerequisite: Permission of the Department; priority will be given to students in Communication Studies programmes. This course considers the principles and responsibilities of Public Relations, and critically examines specific P.R. problems and the choice of media in effecting solutions.

COMMUNICATION STUDIES C475
Visual Dynamics IV (6 credits)
Prerequisite: COMS C375, and permission of the Department. Developing the visual imagination: conceiving and organizing ideas for expression through media, such as Print, Film, Television. Each student will be asked to conceive a 'story' (an integrated narrative), and to determine its most appropriate visual presentation (emphasizing the story's significance and maintaining overall unity). Three presentational modes will be considered: a) the controlled sequence; b) the randomly perceived message; c) the pictorial symbol. Lectures and Laboratory: average, 6 hours per week.
NOTE: Students are required to bear some of the cost of materials

COMMUNICATION STUDIES C481
Seminar and Practicum in Film III
(6 credits)
Prerequisite: Above-average standing in COMS C381 and permission of the Department. An advanced course in film theory and communication. Film-making processes covered will include scripting, directing, "A and B roll" editing, and shooting with crystal sync-sound equipment. Lectures and Laboratory: average, 6 hours per week.
NOTE: Students are required to bear some of the cost of materials.

COMMUNICATION STUDIES C487
Seminar and Practicum in Television III
(6 credits)
Prerequisite: Above-average standing in COMS C387, and approval of the Department. An advanced course in television theory and communication. Possible options, depending on the ability of the students in any one year, include the dramatic documentary and the complete adaptation for television of professional plays. Lectures and Laboratory: average, 6 hours per week.
NOTE: Students are required to bear some of the cost of materials.

COMMUNICATION STUDIES C490
Communication Research Laboratory
(6 credits)
Prerequisite: Permission of the Department. Research under tutorial direction in one of the following topics: communication programming, computer communication programming, digital and analog media analysis, biometric or biotelemetric research in film and television, basic and advanced holography, multi-media design.

COMMUNICATION STUDIES C496
Honours Project I (3 credits)
Prerequisite: Open only to students in Communication Studies programmes. Towards the end of their second year, students enrolled in a Communication Studies programme who have demonstrated scholarly and creative ability may be selected for major

research or production in a communications area of special interest. During the third year, individually or in teams, the project is realized in close collaboration with Faculty directors.

NOTE: Students who have received credit for COMS C495 may not take this course for credits.

COMMUNICATION STUDIES C497
Honours Project II (3 credits)

Prerequisite: Open only to students in Communication Studies programmes. Students who have received credit for COMS C496 may register for COMS C497.

31.080 Economics

Chairman
B.S. SAHNI, *Associate Professor*

Professors
J. AHMAD
M. ARMSTRONG
F. HAYES
D. SCHEFFMAN

Associate Professors
S. AHSAN
S. ALVI
A. ANASTASOPOULOS
J. BRESLAW
M. FRANKENA
M.N. ISLAM
A. LALLIER
Z.R. LIU
F. MULLER
D. OTCHERE
D. SHAPIRO
W. SIMS
B. SINGH
M. STELCNER
A. TAKAHASHI

Assistant Professors
P. CALLIER
I. IRVINE
A. JACKSON
E. SIGGEL
J.B. SMITH
B. WRIGHT

Lecturers
M.N.A. HINTON
L.M. PEPALL

Visiting Scholar
S. MARGLIN

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

Advanced Core
All Honours students are required to select 18 credits from 'Advanced Core' courses.

ECON C401^3	Advanced Microeconomic Theory
ECON C403^3	Advanced Macroeconomic Theory
ECON C408^6	History of Economic Thought
ECON C421^3	Econometrics I
ECON C422^3	Econometrics II
ECON C425^3	Mathematical Economics I
ECON C426^3	Mathematical Economics II
ECON C432^3	Advanced Monetary Theory
ECON C435^3	Advanced Public Finance
ECON C442^3	International Economics - Trade Theory
ECON C443^3	International Economics - Finance

60	**BA Honours in Economics**
6	*ECON C201^3, C203^3
12	ECON C301^3, C302^3, C303^3, C304^3
6	ECON C325^3, C326^3
6	**ECON C221^3 and C222^3 or QUAN C243^3 and C244^3
18	Chosen from ECON Advanced Core courses
12	ECON elective credits

60	**BA Specialization in Economics**
6	*ECON C201^3, C203^3
12	ECON C301^3, C302^3, C303^3, C304^3
6	ECON C325^3 and C326^3
6	**ECON C221^3 and C222^3 or QUAN C243^3 and C244^3
18	Chosen from 400-level ECON courses
12	ECON elective credits

42	**BA Major in Economics**
6	*ECON C201^3, C203^3
6	**ECON C221^3 and C222^3 or QUAN C243^3 and C244^3
12	ECON C301^3, C302^3, C303^3, C304^3
6	Chosen from 400-level ECON courses
12	ECON elective credits

30	**Minor in Economics**
6	*ECON C201^3, C203^3
12	ECON C301^3, C302^3, C303^3, C304^3
12	ECON elective credits

**Students exempted from ECON C201 and/or C203 are required to replace these courses with ECON electives.*
***Any equivalent 6 credits satisfy this component of the programme. See note after ECON C222.*

Students seeking admission to the Honours Programme on or after June 1, 1977, will be bound by the Honours requirements outlined in §16.2.4 of this Calendar. Students who already had Honours status by June 1, 1977, will continue to be governed by the requirements which applied at the date of their admission to the Honours Programme.

The courses in Economics listed below are acceptable as Science credits in the Bachelor of Science degree.
ECONOMICS C222^3, C325^3, C326^3, C421^3, C422^3, C425^3, C426^3

ECONOMICS CO-OPERATIVE PROGRAMME

Director
M. ARMSTRONG, *Professor*

The Economics Co-Operative Programme is offered to students who are enrolled in the B.A. Honours or Specialization in Economics.

Students in Economics Co-Op take the regular academic programme. The schedule of academic and work periods for an entering group of Economics Co-Op students is given in §31.515.

The overseeing of the Economics Co-Op Programme is the responsibility of the Director of the Economics Co-Operative programme and the departmental Co-Op Committee, which provides the connecting link between students, employers and the Institute for Co-Operative Education.

Students interested in applying for Economics Co-Op should refer to §31.515 where a full description of the admission requirements is provided or write to The Principal, Institute for Co-Operative Education, 7308 Sherbrooke Street West, Montreal, Quebec, H4B 1R6. For information by telephone see "CONTACTS" in §31.515.

Groups of Economics Courses Classified According to Subject

Group 0
ECONOMICS C200
Introductory Economics (6 credits)

ECONOMICS C201
Introduction to Microeconomics (3 credits)

ECONOMICS C203
Introduction to Macroeconomics (3 credits)

ECONOMICS C301
Intermediate Microeconomic Theory I (3 credits)

ECONOMICS C302
Intermediate Microeconomic Theory II (3 credits)

ECONOMICS C303
Intermediate Macroeconomic Theory I (3 credits)

ECONOMICS C304
Intermediate Macroeconomic Theory II (3 credits)

ECONOMICS C401
Advanced Microeconomic Theory (3 credits)

ECONOMICS C403
Advanced Macroeconomic Theory (3 credits)

ECONOMICS C405
Welfare Theory (3 credits)

ECONOMICS C408
History of Economic Thought (6 credits)

Group 1
ECONOMICS C311
Economic Development I (3 credits)

ECONOMICS C312
Economic Development II (3 credits)

ECONOMICS C315
The Economic Development of Quebec (3 credits)

ECONOMICS C316
Canadian Economic Issues I (3 credits)

ECONOMICS C317
Canadian Economic Issues II (3 credits)

ECONOMICS C411
Quantitative Development I (3 credits)

ECONOMICS C412
Quantitative Development II (3 credits)

ECONOMICS C413
Economic Growth and Fluctuations (3 credits)

Group 2
ECONOMICS C221
Statistical Methods I (3 credits)

ECONOMICS C222
Statistical Methods II (3 credits)

ECONOMICS C323
Use of Economic Data (3 credits)

ECONOMICS C325
Mathematics for Economists I (3 credits)

ECONOMICS C326
Mathematics for Economists II (3 credits)

ECONOMICS C421
Econometrics I (3 credits)

ECONOMICS C422
Econometrics II (3 credits)

ECONOMICS C425
Mathematical Economics I (3 credits)

ECONOMICS C426
Mathematical Economics II (3 credits)

ECONOMICS C428
Optimization Techniques (3 credits)

Group 3
ECONOMICS C331
Money and Banking (3 credits)

ECONOMICS C335
Economics of the Public Sector I (3 credits)

ECONOMICS C336
Economics of the Public Sector II (3 credits)

ECONOMICS C432
Advanced Monetary Theory (3 credits)

ECONOMICS C435
Advanced Public Finance (3 credits)

Group 4
ECONOMICS C341
International Economic Relations (3 credits)

ECONOMICS C442
International Economics: Trade Theory (3 credits)

ECONOMICS C443
International Economics: Finance (3 credits)

Group 5
ECONOMICS C250
Introduction to Economic History (6 credits)

ECONOMICS C351
Economic History of Canada (6 credits)

ECONOMICS C352
Economic History of the U.S.A. (6 credits)

ECONOMICS C353
Economic History of Europe (6 credits)

ECONOMICS C450
Advanced Economic History (3 credits)

Group 6
ECONOMICS C361
Industrial Organization (3 credits)

ECONOMICS C362
Economics of the Firm (3 credits)

ECONOMICS C461
Industrial Economics (3 credits)

ECONOMICS C462
The Corporate Economy (3 credits)

Group 7
ECONOMICS C370
Comparative Economic Systems (6 credits)

ECONOMICS C374
Theory and Practice of Cooperation (3 credits)

ECONOMICS C375
The Soviet Economy (3 credits)

ECONOMICS C377
The Chinese Economy (3 credits)

ECONOMICS C473
Economics of Socialism (3 credits)

ECONOMICS C476
Marxist Economics (3 credits)

Group 8
ECONOMICS C381
Labour Economics I (3 credits)

ECONOMICS C382
Industrial Relations I (3 credits)

ECONOMICS C383
Industrial Relations II (3 credits)

ECONOMICS C386
Economics of Human Resources (3 credits)

ECONOMICS C387
Labour Law (6 credits)

ECONOMICS C481
Labour Economics II (3 credits)

Group 9
ECONOMICS C391
Economics of the Environment (3 credits)

ECONOMICS C392
Urban Economics (3 credits)

ECONOMICS C396
Natural Resource Economics (3 credits)

ECONOMICS C397
Economics of Discrimination (3 credits)

ECONOMICS C398
Study in a Special Subject I (3 credits)

ECONOMICS C399
Study in a Special Subject II (3 credits)

ECONOMICS C490
Economics of Social Welfare (6 credits)

ECONOMICS C493
Regional Economics (3 credits)

ECONOMICS C495
Economics of Transportation and Communications (3 credits)

ECONOMICS C498
Study in a Special Subject III (3 credits)

ECONOMICS C499
Study in a Special Subject IV (3 credits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

ECONOMICS C200
Introductory Economics (6 credits)
This course is primarily for students not majoring in Economics. Its content is essentially the same as that of ECON C201 and C203. However, there is greater emphasis on Canadian economic institutions and government policies. It is open to all students except those in Commerce, and does not count as credit towards any Economics programme.

ECONOMICS C201
Introduction to Microeconomics (3 credits)
Introduction to the functioning of the market system; concepts of supply and demand, the role of prices in resource allocation; production decisions by firms. Analysis of differences between competition and monopoly, and the implications for economic efficiency; theories of labour markets and wage determination.

ECONOMICS C203
Introduction to Macroeconomics (3 credits)
An introductory analysis of aggregate economic activity. The focus is on the principles of determination of the level of employment, national income, real output, inflation, and international balance of payments. The course also analyzes the principles which govern trade relations among countries. These topics are integrated by a discussion of government monetary and fiscal policies to stabilize economic activity.

ECONOMICS C221
Statistical Methods I (3 credits)
Prerequisite: CEGEP Mathematics 201, or equivalent. Elementary probability, permutations and combinations, binomial and normal distribution. Analysis and organization of statistical data. Tests of hypotheses. Confidence limits. Introduction into linear regression and correlation. *NOTE See §200.7*
NOTE: Credits will be given for only one 6-credit course or two 3-credit courses from ECON C221 and C222, MATH C207 and C241, QUAN C243 and C244, SOCI C210, PSYC C317 and C318.

ECONOMICS C222
Statistical Methods II (3 credits)
Prerequisite: ECON C221, or equivalent. The course is an introduction to the application of statistical techniques to economic data. Topics discussed will include, among others, time series, statistical inference, analysis of variance, correlation and regression. *NOTE See §200.7*
NOTE: Credits will be given for only one 6-credit course or two 3-credit courses from ECON C221 and C222, MATH C207 and C241, QUAN C243 and C244, SOCI C210, PSYC C317 and C318.

ECONOMICS C250
Introduction to Economic History (6 credits)
A study of the economic development of

western societies. Particular attention will be paid to Europe during the period from the sixteenth century to the present day. The aim of the course is to provide an understanding of the interconnections among social, economic, and political change.

ECONOMICS C301
Intermediate Microeconomic Theory I (3 credits)
Prerequisite: ECON C201 and C203. Theory and measurement of demand, theory of consumer behaviour, production, theory of the firm, and cost analysis.

ECONOMICS C302
Intermediate Microeconomic Theory II (3 credits)
Prerequisite: ECON C301. Market structure (perfect competition, monopoly, oligopoly), industrial concentration, factor markets, income distribution, economic efficiency, general equilibrium, welfare economics.

ECONOMICS C303
Intermediate Macroeconomic Theory I (3 credits)
Prerequisite: ECON C201 and C203. An analysis of the major areas of aggregate economics. Topics will include the definition and measurement of regional income and the theory of income determination in the classical and in the Keynesian systems.

ECONOMICS C304
Intermediate Macroeconomic Theory II (3 credits)
Prerequisite: ECON C303. Topics will include review of the complete Keynesian system, business cycles, economic fluctuations in Canada, inflation and unemployment theories, macroeconomic policies, economic growth, and their theory and application to Canada.

ECONOMICS C311
Economic Development I (3 credits)
Prerequisite: ECON C201 and C203. The course investigates comparative economic development, with special attention to problems of capital formation, population growth, quality of labour force, and social and cultural attitudes towards economic modernization. Theories of economic development are evaluated in the context of the realities of historical patterns and the varying degrees of ability to achieve modernization.

ECONOMICS C312
Economic Development II (3 credits)
Prerequisite: ECON C311. The concept and meaning of economic planning, methodology and strategy of planning, input-output and sector analysis, techniques of planning, investment criteria and priorities, study and appraisal of economic plans of a few countries.

ECONOMICS C315
The Economic Development of Quebec (3 credits)
Prerequisite: ECON C201 and C203. This course will review past and present trends in the economic development of Quebec. Emphasis will be placed on the economic growth of Quebec since the Second World War. Attention will be given to the regional aspects of Quebec's growth problems.

ECONOMICS C316
Canadian Economic Issues I (3 credits)
Prerequisite: ECON C201 and C203. This course will be devoted to an analysis of some economic issues facing Canada; for example, employment and unemployment, inflation, economic growth and potential, income distribution, social-security policies, monetary and fiscal policies.

ECONOMICS C317
Canadian Economic Issues II (3 credits)
Prerequisite: ECON C201 and C203. This course is similar to ECON C316, but will cover a different group of topics; for example, foreign ownership and control, regional-development problems, monopoly and competition, government regulation of business, agricultural policy, trade policy.

ECONOMICS C323
The Use of Economic Data (3 credits)
Prerequisite: ECON C201 and C203. The purpose of this course is to acquaint the student with the sources, interpretation and methods of application of economic data. To achieve this, the student will be introduced to computerized statistical packages (e.g. TSP, SPSS, MPOS), computerized and other data bases (e.g. CANSIM), and the use of bibliographic search techniques.

ECONOMICS C325
Mathematics for Economists I (3 credits)
Prerequisite: ECON C201, C203; MATH C201, or equivalent. This course introduces the student to differential and integral calculus and to their applications in economic analysis. Topics covered include set theory, the concept of limits and rules for differentiation and integration. It also deals with the relevance of these concepts and techniques to economic problems such as maximization, equilibrium analysis, and dynamic adjustments.

ECONOMICS C326
Mathematics for Economists II (3 credits)
Prerequisite: ECON C325. The main emphasis is on the study of linear algebra and its application to the solution of economic models consisting of a system of linear simultaneous equations. Topics covered include: matrices and vectors; basic properties of determinants and their use in solving equations pertaining to economic problems, such as linear programming and constrained optimization.

ECONOMICS C331
Money and Banking (3 credits)
Prerequisite: ECON C201 and C203. Overview of a monetary economy: nature, forms and the economic role of money. Monetary standards: markets, prices, and the value of money; the payments system; financial markets. Determinants of size and distribution of wealth portfolios. Supply of money: measure, composition, and size determination. The economic role of commercial banks and non-bank financial intermediaries. Central banking and monetary policy. The international monetary system. (Topics will be covered within the Canadian banking institutional framework.)

ECONOMICS C335
Economics of the Public Sector I (3 credits)
Prerequisite: ECON C201 and C203. This course examines government fiscal activity

within the context of a free-market system. Rationale for public-sector activity is reviewed in terms of economic efficiency conditions and the market failures. Among the topics covered in the course are growth of public spending, the concept of public good externalities, collective decision-making process, pure theory of public expenditures, local expenditures analysis, and efficiency in public spending, with special reference to Quebec and Canada.

ECONOMICS C336
Economics of the Public Sector II
(3 credits)

Prerequisite: ECON C335. The principal purpose of this course is to examine and evaluate the important elements of the Canadian fiscal structure, emphasizing taxation and the financing of public expenditures. Among others, issues in taxation of income, both at the individual and corporate levels, excise and sales taxation, taxation of capital gains and wealth, intergovernmental fiscal relations, and tax reform will be taken up.

ECONOMICS C341
International Economic Relations
(3 credits)

Prerequisite: ECON C201 and C203. This course focuses on the discussion and the analysis of the major forms of economic relations among nations; viz., international trade and international capital movements. Emphasis is placed on policies and institutions for the smooth functioning of the international economy, although some theoretical constructs are also introduced. Topics covered include international trade, protection, balance of payments, economic integration, and international monetary system.

ECONOMICS C351
Economic History of Canada (6 credits)

Prerequisite: ECON C201 and C203. This course is designed to introduce the student to Canadian economic development from the early period of settlement to the present day. Emphasis will be placed on the economic history of Canada since Confederation.

ECONOMICS C352
Economic History of the U.S.A. (6 credits)

Prerequisite: ECON C201 and C203. American economic history will be presented from the viewpoint of the "new" economic history. This is a topical approach in which formal economics is used to evaluate traditional historical material. Among the topics which will be covered are: the economic consequences of slavery, the American business cycle, the development of American central banking, the merger movements, the causes of the American "take-off", and the economic causes and consequences of the major wars.

ECONOMICS C353
Economic History of Europe (6 credits)

Prerequisite: ECON C201 and C203. The course will explore the causes and consequences of the British Industrial Revolution and its diffusion to the Continent, in terms of differential national-growth patterns, and social problems associated with economic change. It will include an analysis of free trade, economic nationalism, the new imperialism, the importance of the crisis of 1929, in terms of economic organization, thought, and policy. Post-World War II reorganization, in terms of planning the welfare state, and economic integration.

ECONOMICS C361
Industrial Organization (3 credits)

Prerequisite: ECON C201 and C203. This course develops the relationship of the firm to various forms of market structure. The course will focus on the objectives of the corporation, corporate interdependence, and the government control of industry. A study of policy matters will centre on anti-trust and corporate regulation, with respect to both the legislative and economic aspects.

ECONOMICS C362
Economics of the Firm (3 credits)

Prerequisite: ECON C201; ECON C222 or QUAN C244. This course stresses the application of economic principles and methodologies to the decision making process of the firm, with an emphasis on the role of risk and uncertainty. Topics will include decision-making criteria, demand analysis and estimation, cost analysis and estimation, pricing theory under various market structures, applied topics in pricing, and the impact of government on the firm. This course is primarily of interest to Commerce students, but is open to others as well.

ECONOMICS C370
Comparative Economic Systems (6 credits)

Prerequisite: ECON C201 and C203. A comparative study of contemporary economic systems. While mainly concerned with the institutional features of contemporary free-market economics, the course will also deal with their counterparts, the systems of a command economy, and a Socialist market economy. Of primary interest will be the institutions, mechanisms, and policies which govern allocation, efficiency, growth, and distribution of income, with emphasis on the historical background of the institutions and the social, political, and ideological influences which continue to shape them.

ECONOMICS C374
Theory and Practice of Cooperation
(3 credits)

Prerequisite: ECON C201 and C203. This course will deal with the effect of cooperatives on economic and social development, with emphasis on Quebec and Canada. Among the topics discussed are the origins and development of the cooperative economy, differences among cooperative, capitalist, and communist economic systems; economic, social, educational, and moral transformations taking place under cooperative influence, and the role of cooperation on the international political scene.

ECONOMICS C375
The Soviet Economy (3 credits)

Prerequisite: ECON C201 and C203. The evolution of the Soviet economic system and the policy measures adopted to deal with the problems of establishing and consolidating a socialist state. Special attention is given to Lenin's role in the early phase of the Soviet system, and early economic measures, such as the collectivization of farms. Other topics covered are: the nature of economic planning and progress under Stalin, and the important recent reforms and modifications of the Soviet system under the impact of Liberman's proposals.

ECONOMICS C377
The Chinese Economy (3 credits)
Prerequisite: ECON C201 and C203. This course is devoted to an analysis of Chinese economic development since 1949. Topics include: performance and efficiency, strategy for development, agricultural organization, the contribution of policy to economic growth, the industrial sector, control and allocation of resources, national economic planning.

ECONOMICS C381
Labour Economics I (3 credits)
Prerequisite: ECON C201 and C203. The general objective of this course is to acquaint the student with various theoretical and empirical issues in the area of labour economics. Particular emphasis is placed upon the relation between theoretical frameworks and their empirical counterparts in Canada. Topics include the theory of wage determination, the effects of minimum wages, human capital theory, the economics of discrimination, and the economics of the household.

ECONOMICS C382
Industrial Relations I (3 credits)
Prerequisite: ECON C201 and C203. A study of the general and practical problems that arise in the labour field, such as collective bargaining, the legal framework for the settlement of industrial disputes, the weapons of industrial conflict; the labour movement; contemporary labour issues, such as automation, cost-push inflation, and structural employment.

ECONOMICS C383
Industrial Relations II (3 credits)
Prerequisite: ECON C382. Topics in industrial relations, with particular emphasis on developments in Canada.

ECONOMICS C386
Economics of Human Resources (3 credits)
Prerequisite: ECON C201 and C203. A study of recent contributions by economists to the understanding of and solution to social problems which society currently faces in the areas of crime, health, education, and welfare. In addition, specific federal and provincial governmental policies in these areas are analyzed with the standard tools of economics.

ECONOMICS C387
Labour Law (6 credits)
Prerequisite: ECON C201 and C203. The development of the trade union movement and early labour legislation in the U.S.A. and Canada; collective bargaining; labour law in Canada and Quebec today, with emphasis on the Industrial Relations and Disputes Investigations Act (Canada), the Quebec Labour Code, and related statutes. An in-depth study of employer's free speech; evocation in matters of arbitration awards; injunctions; successor rights. Practice and procedure before the courts, and labour relations boards and commissions.

ECONOMICS C391
Economics of the Environment (3 credits)
Prerequisite: ECON C201 and C203. The subject of this course is environmental quality. It proceeds through an analysis of the relationships among the natural environment, economics, and institutions. The objective is to depict the problem of environmental quality as an economic problem whose solution demands major changes in economic, political, and legal institutions. Attention is also given to policies of collective environmental actions in which the effective management of common property resources will be discussed. The course concludes with a discussion of some broader issues, such as the consistency of improved environmental quality with continued economic and population growth.

ECONOMICS C392
Urban Economics (3 credits)
Prerequisite: ECON C201 and C203. This course will focus on the basic issues of economic growth and stagnation, urban land use, the problems of the urban public economy, and special urban problems, such as transportation, congestion, poverty, housing, and urban renewal, and zoning.

ECONOMICS C396
Natural Resource Economics (3 credits)
Prerequisite: ECON C201 and C203. This course focuses on the problems of the finiteness of the natural resources base in Canada and in the world, and on an analysis of the demand for and supply of natural resources and energy. The course also discusses the economic aspects of a selected group of conservation measures (financial incentives, reallocation of property rights, regulation).

ECONOMICS C397
Economics of Discrimination (3 credits)
Prerequisite: ECON C201 and C203. The purpose of this course is to examine some economic issues of discrimination, with particular reference to women in a Canadian context. Among the topics so examined are: techniques for measuring discrimination and poverty, review of empirical studies, traditional and radical approaches to the study of discrimination, and policies to combat discrimination and poverty.

ECONOMICS C398
Study in a Special Subject I (3 credits)
Prerequisite: ECON C201 and C203. This course is designed primarily for Honours, Specialization, and Major students. Its purpose is to provide an opportunity for advanced students to intensify their study beyond the traditional areas of specialization already represented in the curriculum. The selected subject will depend upon the special interest of the instructor offering the course in any given year.

ECONOMICS C399
Study in a Special Subject II (3 credits)
Prerequisite: ECON C201 and C203. A student who has received credit for ECON C398 may register for ECON C399 provided the subject matter is different.

ECONOMICS C401
Advanced Microeconomic Theory
(3 credits)
Prerequisite: ECON C301, C302, C325, and C326. Selected topics in microeconomic analysis, including: methodology, general equilibrium analysis, welfare economics; theory of the firm, factor pricing, and income distribution capital theory. Primarily for Majors, Specialization, and Honours students.

ECONOMICS C403
Advanced Macroeconomic Theory
(3 credits)
Prerequisite: ECON C303, C304; C325 and

C326. Selected topics in macroeconomic analysis, including construction of models of the economy encompassing the labour, product, and financial markets; the role of monetary and fiscal policies; classical, Keynesian, and post-Keynesian models. Primarily for Majors, Specialization, and Honours students.

ECONOMICS C405
Welfare Theory (3 credits)
Prerequisite: ECON C301, C302; C303 and C304. This is an advanced course, intended primarily for Honours students. The course will be devoted to an examination of selected topics in contemporary welfare economics and its applications.

ECONOMICS C408
History of Economic Thought (6 credits)
Prerequisite: ECON C301, C302; C303 and C304. This course traces the development of economic analysis from the time of the Scholastics to modern times. It also includes a description of the prevailing economic, social, and cultural environment in which economists have written. Primarily for Majors, Specialization, and Honours students.

ECONOMICS C411
Quantitative Development I (3 credits)
Prerequisite: ECON C301, C302; C325 and C326. Methods of national accounting and input-output analysis for under-developed countries. Methods of comparing standards of living. Patterns of economic development. Appraisal of models constructed on the premises of modern theories of economic development.

ECONOMICS C412
Quantitative Development II (3 credits)
Prerequisite: ECON C411. The model of economic policy. Planning in stages. The model of linear-activity analysis and efficient decentralization of economic decisions. Planning of efficient accumulation of capital. Individual project evaluation. Foreign-aid and debt-service models. Projection of manpower requirements. Evaluation of empirical applications of optimum planning to underdeveloped economies.

ECONOMICS C413
Economic Growth and Fluctuations
(3 credits)
Prerequisite: ECON C303 and C304. A review of some theories of causes of economic fluctuations. Discussion of the economic climate and of stabilization policies.

ECONOMICS C421
Econometrics I (3 credits)
Prerequisite: ECON C221, C222, C325, and C326. This course develops the simple and multiple classical regression models. The problems of misspecified structures, multicollinearity, and forecasting will also be presented.

ECONOMICS C422
Econometrics II (3 credits)
Prerequisite: ECON C421. This course is a continuation of ECON C421. It deals with the problems of random-error correlation, stochastic regressors, and the stimulation and the estimation of multiple-equation models.

ECONOMICS C425
Mathematical Economics I (3 credits)
Prerequisite: ECON C301, C302, C303, C304, C325, and C326. A set-theoretic approach to the theory of demand and production. Special topics in the application of static optimization.

ECONOMICS C426
Mathematical Economics II (3 credits)
Prerequisite: ECON C425. Optimization over time: theory and applications to problems of consumption and investment planning, growth, and capital accumulation. Differential equations.

ECONOMICS C428
Optimization Techniques (3 credits)
Prerequisite: ECON C301, C302; C303, C304; C325, C326. This is an advanced course for Honours students, and for Specialization and Majors students with the consent of the Department. Topics include linear programming and input-output analysis; basic concepts and solutions of linear programming, its application to optimum resources allocation; exposition of basic inter-industry theory within the framework of input-output techniques; its applications to structural analysis.
NOTE: Only 3 credits will be awarded from ECON C428 and QUAN C416.

ECONOMICS C432
Advanced Monetary Theory (3 credits)
Prerequisite: ECON C301, C302; C303, C304, or permission of the Department. The nature of the monetarist-Keynesian controversy and critical appraisal of the IS-LM-AS model. Special topics; theory and evidence of term structure of interest rates, post-Keynesian demand for and supply of money in aggregative and dis-aggregative economic models. Theory of macro-economic policy. Transmission mechanisms, policy coordination, lags, international constraints, and other problems.

ECONOMICS C435
Advanced Public Finance (3 credits)
Prerequisite: ECON C301, C302; C303, C304, C335, C336. In this course, several key areas in Public Finance will be dealt with in depth. Topics covered will be selected from the following: public goods and externalities, cost-benefit analysis, pricing policy of public enterprises, structure of commodity taxation, structure of income taxation, issues in tax reform, and intergovernmental fiscal relations.

ECONOMICS C442
International Economics: Trade Theory
(3 credits)
Prerequisite: ECON C301 and C302. The basis of international trade, gains from trade, factor-price equalization, the tariff, Canadian commercial policy, trade and development, economic integration.

ECONOMICS C443
International Economics: Finance
(3 credits)
Prerequisite: ECON C303 and C304. International monetary economics, foreign exchange markets, adjustment mechanisms, capital flows, balance of payments and domestic policy goals, international liquidity.

ECONOMICS C450
Advanced Economic History (3 credits)
Prerequisite: ECON C221, C222; C301, C302, C303, and C304. Advanced topics in

economic history, with emphasis on the application of economic theory to specific historical questions.

ECONOMICS C461
Industrial Economics (3 credits)
Prerequisite: ECON C221 and C222; C301 and C302. This course analyzes the structure, conduct, and performance of Canadian and U.S. industries. Topics include the determinants of industrial structure, such as economies of scale and barriers to entry, measures of conduct and performance, technological change, advertising, mergers, integration, and public policy.

ECONOMICS C462
The Corporate Economy (3 credits)
Prerequisite: ECON C221 and C222; C301 and C303 or FINA C314 and C315. This course will examine the nature of the large firm, its behaviour and its impact on the national and international economy. Topics will include: the emergence and historical development of the corporate firm; the separation of ownership from control; the large firm in Canada; theories of the large firm; mergers; macro-economic effects of large firms (administered pricing-inflation); the multinational corporation (theories, evidence, and effects).

ECONOMICS C473
Economics of Socialism (3 credits)
Prerequisite: ECON C301 and C302. This course analyzes the theoretical aspects of various types of socialist economies: market, centrally planned, and worker-managed. Definitions and models of the various forms will be developed and compared with a capitalist model and with existing socialist economies such as those of Cuba, China, Yugoslavia, and the U.S.S.R.

ECONOMICS C476
Marxist Economics (3 credits)
Prerequisite: ECON C301, C302, C303, and C304 or ECON C370, or permission of the Department. A general survey of Marxist theory, including historical and dialectical materialism. Marx's microeconomics: labour theory of value and its classical predecessors; theory of exploitation and the Iron Law of Wages; transformation problem and price theory. Marx's macroeconomics: business cycles and the theory of capitalist development; crises and the breakdown of capitalism. Contemporary Marxism and the question of the withering away of the state.

ECONOMICS C481
Labour Economics II (3 credits)
Prerequisite: ECON C301 and C302; C303 and C304; C381. Advanced topics in labour economics with special emphasis on labour-market problems and policies in Canada. Topics include the theory of work-leisure choice, mobility and immigration, unemployment and unfilled vacancies, income distribution, labour market information and the wage-price relationship.

ECONOMICS C490
Economics of Social Welfare (6 credits)
Prerequisite: ECON C301 and C302; C303 and C304. This course will be devoted to an examination of the economic aspects of social welfare issues in Canada. Topics include: employment and unemployment; manpower problems and policies, inequality, poverty, social insurance and social assistance; investment in man, especially education and health; urban and regional development; environmental economics; federal, provincial, and municipal policies.

ECONOMICS C493
Regional Economics (3 credits)
Prerequisite: ECON C301, C302; C303, C304. This course introduces the student to the methods and techniques of regional economic analysis, and their application to the problems of regional economies within Canada. Among the microeconomic topics covered are: the location behaviour of firms and households, and the factors determining the allocation of land among alternative competing uses. Macroeconomic topics include: the measurement and analysis of regional income and growth levels, cyclical changes in those levels, and interregional differences in growth rates. Policy problems pertinent to Canadian regions are stressed throughout the course.

ECONOMICS C495
Economics of Transportation and Communications (3 credits)
Prerequisite: ECON C301, C302. Congestion problems and solutions, pricing, costs, demand, and regulation in transportation. Some applications to communications.

ECONOMICS C498
Study in a Special Subject III (3 credits)
Prerequisite: Permission of the Department. This course is designed primarily for Honours, Specialization, and Majors students. Its purpose is to provide an opportunity for students to intensify their study beyond the traditional areas of specialization already represented in the curriculum. The selected subject will depend upon the special interest of the instructor offering the course in any given year.

ECONOMICS C499
Study in a Special Subject IV (3 credits)
Prerequisite: Permission of the Department. A student who has received credit for ECON C498 may register for ECON C499 provided the subject matter is different.

31.090 Education

Chairman
D.J. DICKS, *Associate Professor*

Professors
J.K. BHATNAGAR
G. BOYD
G.O. COLDEVIN
H. ENTWISTLE
P.D. MITCHELL

Research Professor
G. PASK

Associate Professors
P. ABRAMI
L.J. BARON
M. FARRELL
G. FIDLER
A. HAMALIAN
E. JACOBS
R.F. SCHMID

Associate Professor of Education and Psychology
D. WHITE

Assistant Professors
J. BARAKETT
R. BARRETT
R.M. BERNARD
W. KNITTER
C. LAVERS
C. PETERSEN
J. RICHMAN
F. STEVENS
M. TOVAR
P. VAN WEST

Lecturers
J. VASQUEZ
S. WEINBERG

Post-Retirement Associate Professor
F.P. FRIEDMAN

31.090.1 PROGRAMMES
(For Adult Education, see §31.090.2)

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

72 BA Honours in Education and Philosophy
See Section 31.004

30 Minor in Education
30 Chosen from EDUC C201^6, C210^6, C230^3, C305^3, C306^3, C317^3, C321^3, C390^3, C392^3, C405^3, C406^3, C407^3, C413^3, C414^3, C415^3, C416^3, C417^3, C421^6, C426^3, C427^3, C430^6, C441^6, C442^3, C497^3, C498^3

***78 BA Specialization in Early Childhood Education**
57 EDUC C210^6, C211^3, C260^3, C262^3, C270^3, C271^3, C371^3, C380^3, C382^3, C386^3, C387^3, C388^3, C445^3, C461^6, C472^3, C473^3, C474^3
6 Chosen from ARTE C201^3, DINE C201^3, MINE C301^3, EXCI C215^3 or C251^3 in consultation with the Early Childhood Programme Director
6 Chosen from EDUC C413^3, C414^3, C416^3, C417^3 in consultation with the Early Childhood Programme Director
6 Chosen from EDUC C421^6, C426^3, C427^3, C430^6, C441^6 in consultation with the Early Childhood Programme Director
3 Chosen from EDUC C383^3, C384^3, C385^3 in consultation with the Early Childhood Programme Director

**NOTE: Upon successful completion of the BA Specialization in Early Chilhood Education programme and application to the Registrar's Services Department, students may be recommended to the Quebec Teachers Certification Service for a Quebec Teaching Permit (Probation), for prekindergarten, kindergarten and Grades 1-3.*

To be recommended for certification students must:

1. achieve at least a B (75%) grade in each of the following courses: EDUC C270, C271, C371, C472, C473, C474; and
2. achieve at least a C (65%) grade in each of the following courses: EDUC C380, C383, C384, C385, C386, C387, and C388.

Students who obtain a passing grade that is below the level required for recommendation for certification will be placed on conditional standing within the programme and will be so informed in writing by the Chairman of the Department of Education. Students will be allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see calendar §16.3.8.)

In order to remain in the degree programme, students who fail to repeat the course successfully within one year are required to acknowledge in writing that they have forfeited the right to be recommended for certification.

45 BA Major in Child Studies
18 EDUC C211^3, C260^3, C262^3, C371^3, C461^6
9 Chosen from EDUC C317^3, C405^3, C413^3, C414^3, C416^3, C417^3 in consultation with the Early Childhood Director
9 Chosen from EDUC C380^3, C382^3, C383^3, C384^3, C385^3, C386^3, C387^3, C388^3, C421^6, C426^3, C427^3, C430^6, C441^6 in consultation with the Early Childhood Programme Director

3 Chosen from PSYC C220[3], C221[3], C222[3], C223[3], C224[3], C225[3], C230[3], C231[3], C281[3] in consultation with Early Childhood Programme Director

6-12 Chosen from ARTE C201[3], C202[3], DINE C201[3], C202[3], MINE C301[3], EXCI C215[3], HEAL C208[6], C251[3], SOCI C272[6], C373[3]*

**At least two different disciplines must be selected. Students who elect to take SOCI C272[6] or ENGL C237[6] must select an additional 3 - 6 credits in a different discipline from the courses listed above.*

***CERTIFICATE IN EDUCATION**

The Department of Education offers a 30-credit programme leading to the Concordia University Certificate in Education and certification from the Provincial Department of Education.

NOTE: This programme is restricted to individuals at present employed in a recognized educational institution in Quebec and holding a provisional teaching authorization.

Admission Requirements

1. Evidence of full-time employment with a recognized institution in Quebec.
2. Possession of a Quebec Provisional Teaching Authorization.

Admission suspended for 1982-83.

Courses

EDUC C201[6]
EDUC C210[6]
either EDUC C480[3], C481[3], or an equivalent course in teaching methodology
EDUC C445[3]
EDUC C471[6]
6 additional undergraduate credits in Education chosen in consultation with the Director of the Programme.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

NOTE:

1. The student must meet the minimum scholarity requirements set by the Provincial government before being recommended for certification.

2. This programme is not open to teachers of vocational subjects or elementary teachers.

**NOTE: Upon successful completion of the BA Specialization in Early Childhood Education programme and application to the Registrar's Services Department, students may be recommended to the Quebec Teachers Certification Service for a Quebec Teaching Permit (Probation), for prekindergarten, kindergarten, and Grades 1-3. Previously certified teachers will be recommended for a Teaching Diploma.*

To be recommended for certification (Permit or Diploma), students must:

1. achieve at least a B (75%) grade in each of the following courses: EDUC C270, C271, C371, C472, C473, C474; and
2. achieve at least a C (65%) grade in each of the following courses: EDUC C380, C383, C384, C385, C386, C387, and C388.

Students who obtain a passing grade that is below the level required for recommendation for certification will be placed on conditional standing within the programme and will be so informed in writing by the Chairman of the Department of Education. Students will be allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see calendar §16.3.8.)

Students who fail to repeat the course successfully within one year will, to remain in the degree programme, be required to acknowledge in writing that they have forfeited the right to be recommended for certification.

Students who obtain a failing grade (F, R or NR) in any of the courses listed in paragraphs (1) and (2) above will be required to withdraw from the programme and will be so informed in writing by the Chairman of the Department of Education.

In the event that a student meets regular University standards but does not satisfy the requirements for recommendation for certification, the student may apply to receive the University degree but will not be recommended to the Ministry.

The provisions of this policy also apply to the Certificate in Education programme. In EDUC C471, at least a B (75%) grade is required for such recommendation, in EDUC C480 and C481 at least a C (65%) grade.

For other programmes which may be of particular interest to teachers, see §21.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

EDUCATION C201
The Nature and Function of Teaching
(6 credits)

An introduction to the purpose, theories, and methods of teaching.

EDUCATION C210
Psychology of Education (6 credits)

This course will introduce the student to a broad range of content in educational psychology, including its scope and methods, learning motivation, growth and development, adjustment, individual differences, guidance, and concept of self.

EDUCATION C211
Child Growth and Development (3 credits)

Prerequisite: Enrolment in Early Childhood Education Specialization or Major in Child Studies, or permission of the Early Childhood Education Director. Students will study the physical, cognitive, affective, and social development of the young child. Genetic and environmental factors that influence development will be examined. The implications of developmental needs in terms of planning environments will be covered.

EDUCATION C230
Introduction to Philosophy of Education
(3 credits)

This course will introduce the student to the content and form of several major educational theories, and to conceptual and logical procedures of philosophizing about education, with particular reference to teaching and learning.

EDUCATION C260
A Survey of Early Childhood Education
(3 credits)

Prerequisite: Enrolment in Early Childhood Education Specialization, or Major in Child Studies, or permission of the Early Childhood Education Director. This course provides an introduction to the field of early childhood education. The history and philosophy of pre-schools, day care, and the nursery school movement will be presented. The influences of major writers, such as Rousseau, Froebel, Pestalozzi, Itard, Seguin, Montessori, and Dewey will be examined. Comparative pre-school educational practices in other countries will be explored.

EDUCATION C262
The Family and the Child (3 credits)

Prerequisite: Enrolment in Early Childhood Education Specialization, or Major in Child Studies, or permission of the Early Childhood Education Director. Students will study various dimensions of the child-parent-school interaction process. Parental understanding of and empathy for the child will be discussed. Family attitudes, feelings, values, expectations, and their impact on the child will be examined. Changes in familial living styles resulting from societal changes will be explored. Students will study and practise methods to facilitate and improve school-parent communications.

EDUCATION C270
Practicum I: Curriculum, Classroom Management, and Micro-Teaching
(3 credits)

Prerequisite: Enrolment in Early Childhood Education Specialization. Students will study curriculum development and classroom management at the pre-school level. Teaching skills will be modelled and practised in microteaching sessions. Students will plan and develop activities, lessons, and units, which they will implement in the microteaching sessions. Videotapes of performance will be reviewed and discussed.

NOTE: Students must have achieved at least a B (75%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C271
Practicum II: Pre-School Field Experiences
(3 credits)

Prerequisite: Enrolment in Early Childhood Education Specialization. This course requires students to spend one day a week for one semester in the Concordia Child Care Centre, or other pre-school setting. Students will be required to observe, record, and assess the behaviour of young children, to study programme organization and general classroom functioning. Each student will develop a curriculum unit which will be taught. Students must attend a weekly seminar given by the Director, Concordia Child Care Centre.

NOTE: Students must have achieved at least a B (75%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C305
Technology for Educational Change I
(3 credits)

This course introduces the student to a wide range of ideas and practical skills in Educational Technology, a field which encompasses mass communications, computer-based systems, audio-visual instrumentation, simulation and gaming, systems analysis, and instructional design. A modular approach is adopted; each module covers, in a six-week period, a particular area of thought in Educational Technology. Two modules are offered. The first deals, from a theoretical viewpoint, with human communication processes (semiotics, gesture, sociolinguistics, etc.). The second module focuses on specialized applications of computer technology in education: computer-assisted learning (CAL) and computer-managed instruction (CMI). The course will require laboratory work outside class.

EDUCATION C306
Technology for Educational Change II
(3 credits)

Like EDUC C305, this course offers two modules focusing on particular aspects of Educational Technology. Each module is covered in six weeks. The first module deals with small-studio television production, tutorials in production skills culminating in script-writing, and group production of an educational TV programme. The second module introduces techniques for systematically designing instructional units tailored to individual needs. The course requires laboratory work outside class.

EDUCATION C317
The Urban Child (3 credits)

This course concentrates upon the life of the inner-city child and the concomitant influences upon his development in and out of the classroom. Students are instructed in how to view the urban area from the child's perspective, through field assignments in inner-city schools or recreation centres. Lectures by social workers, police officers of the youth section, legal aid counsellors, and inner-city teachers heighten the awareness of students to the environment in which the inner-city child lives.

EDUCATION C321
Sex Role Socialization in the School
(3 credits)

This course will focus upon how children at the elementary- and secondary-school level are socialized for different work roles, and how work segregation has occurred on the basis of this process. The role of schools and curriculum, then, will be examined in relation to cultural changes in social roles.

EDUCATION C324
Patterns of Educational Culture (3 credits)

This course is an introduction to the variety of cultural settings in which formal schooling and informal education socialization take place. The cultural milieu of education, both inside the classroom and outside, in the family, the neighbourhood, the market-place, and the political arena is the focus of readings and lectures.

The aim of this course is to immerse the student in the concepts of anthropology and education in the broadest sense. It is hoped that students will become sensitized to the concept of culture, cultural assimilation, enculturation, socialization, informal, non-formal, and formal educational systems, open and closed societies, and cross-cultural comparison.

EDUCATION C371
Practicum III: Classroom Interaction Dynamics (3 credits)

Prerequisite: Must have completed thirty credits in the Specialization in Early Childhood Education. This course is designed to encourage both systematic and anthropological observation of children in large and small groups in the classroom. Interaction between child/teacher, children/teacher, and children/children will be studied. Models of interaction will be examined, and verbal as well as non-verbal communication will be covered. The purpose of this course is to develop more effective teaching. The implications of classroom grouping, as well as individual interactions in teaching styles and techniques will be discussed. Videotapes, classroom observation, and participation will be employed.

NOTE: Students must have achieved at least a B (75%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C380
Language Arts in Early Childhood Education (3 credits)

Prerequisite: Second-year standing in Early Childhood programmes or permission of the Early Childhood Director. The aim of this course is to give the early childhood educator the skills to develop a stimulating and appropriate language arts programme for the classroom. The language arts curriculum, resource materials and teaching methodologies for the preschool and primary child will be studied. The course will focus on listening, speaking, reading and writing, with special emphasis on integrating language arts activities into all subject areas.

NOTE: Students must have achieved at least a C (65%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C382
Teaching Science Concepts to Young Children (3 credits)

Prerequisite: Second-year standing in Early Childhood programmes or permission of the Early Childhood Director. This course will examine areas of science which are relevant to the young child and will emphasize the development of the spirit of scientific enquiry. Resource materials, teaching methodology and classroom activities for early childhood education (preschool and primary) will be examined and evaluated. Assignments will emphasize developing activities for classroom use.

NOTE: Students must have achieved at least a C (65%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C383
Promoting Moral and Spiritual Attitudes and Values in Young Children (3 credits)

Prerequisite: Second-year standing in Early Childhood programmes or permission of the Early Childhood Director. This course is designed to introduce the early childhood teacher to the various issues involving the development of moral judgment and reasoning in the young child. Cultural, social, cognitive and emotional factors influencing the growth of morality will be discussed. The major focus will be on examining methods and techniques to enhance the personal development of positive social behaviours (i.e. helping, sharing, caring, etc.) in preschool and primary level children.

EDUCATION C384
Exploring the Human Sciences with the Preschool and Primary Age Child (3 credits)

Prerequisite: Second-year standing in Early Childhood programmes or permission of the Early Childhood Director. This course will examine the teaching of the human sciences to young children.

EDUCATION C385
Teaching a Second Language to a Young Child (3 credits)

Prerequisite: Second-year standing in Early Childhood programmes or permission of the Early Childhood Director. This course is designed to give teachers a background in current theories of language acquisition and second language learning. Teaching methodologies such as immersion, enrichment, core/complementary curricula will be studied and resource materials will be examined and evaluated. Assignments will include the development of appropriate classroom activities for young children.

NOTE: This course was offered for the first time in the academic year 1980-81.

NOTE: Students must have achieved at least a C (65%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C386
Teaching Reading to Preschool and Primary Children (3 credits)

Prerequisite: Second-year standing in Early Childhood programmes or permission of the Early Childhood Director. This course deals with the teaching of reading skills to children up to grade 3. Students will be introduced to various approaches used in the teaching of reading. They will examine and evaluate several reading programmes. Special emphasis will be placed on classroom organization; resources for individualizing reading instruction and methods to evaluate reading performance.

NOTE: This course was offered for the first time in the academic year 1980-81.

NOTE: Students must have achieved at least a C (65%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C387
Teaching Mathematics to Preschool and Primary Children I (3 credits)

Prerequisite: Second-year standing in Early Childhood programmes or permission of the Early Childhood Director. This course and the following course (EDUC C388) are designed to provide teachers of young children with background mathematical knowledge and teaching competencies necessary for the development of an exciting and creative mathematical programme for preschool and primary children.

This course will concentrate on the number aspects of the preschool and primary mathematical curriculum. The use of manipulative aids in instructing the young child will be explored and illustrated. Students will be expected to become familiar with relevant resource materials and assignments will emphasize developing activities for classroom use.

NOTE: A student must have achieved at

least a C (65%) in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C388
Teaching Mathematics to Preschool and Primary Children II (3 credits)

Prerequisite: Second-year standing in Early Childhood programmes or permission of the Early Childhood Director. This course and the preceding course (EDUC C387) are designed to provide teachers of young children with background mathematical knowledge and teaching competencies necessary for the development of an exciting and creative mathematical programme for preschool and primary children. This course will concentrate on topics other than numeration—geometry, measurement, mathematical language, the use of the calculator. The use of manipulative aids in instructing the young child will be explored and illustrated. Students will be expected to become familiar with relevant resource materials and assignments will emphasize developing activities for classroom use.

NOTE: A student must have achieved at least a C (65%) in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C390
Current Issues in Education (3 credits)

A consideration of a contemporary issue, or issues, in education. The issues studied may differ from year to year.

EDUCATION C391
Current Issues in Education (3 credits)

Prerequisite: EDUC C390 and permission of the Department. A student who has received credit for EDUC C390 may register for EDUC C391 provided the subject matter is different.

EDUCATION C392
Problems in Education (3 credits)

A cross-disciplinary or integrated approach to an educational problem or problems. The problem studied may vary from year to year.

EDUCATION C393
Problems in Education (3 credits)

Prerequisite: EDUC C392 and permission of the Department. A student who has received credit for EDUC C392 may register for EDUC C393 provided the subject matter is different.

EDUCATION C405
The T.V. Child - The Educational Implications of Children's Television Viewing Patterns (3 credits)

This course will examine the effects of television on children from a cognitive-developmental perspective. Learning theory, productive technique, cognitive theory (information processing) will be the basis from which the examination of the communication process between the child and the medium will be examined. Both the positive and negative effects of television on children will be considered. The concept of media literacy and classroom use of television will also be discussed.

EDUCATION C406
Contemporary Issues in Curriculum Development I (3 credits)

Prerequisite: Six credits in Education. This course will consider a contemporary issue in curriculum growth, change and/or development. The issue studied may differ from year to year.

EDUCATION C407
Contemporary Issues in Curriculum Development II (3 credits)

A student who has received credit for EDUC C406 may register for EDUC C407 provided the subject matter is different.

EDUCATION C413
Children's Behaviour Problems (3 credits)

Prerequisite: EDUC C210 or C211. This course will focus on the nature of children's behaviour problems and on methods to understand and modify behaviours which interfere with children's emotional, social, and intellectual growth. Students will be involved with the practical applications of the available strategies in order best to help a youngster with behaviour problems according to his or her needs. Specific classroom techniques for coping with the acting-out as well as with the withdrawn child will be given. Students will be taught observational tools, programming suggestions, reinforcement techniques, and evaluation methods.

EDUCATION C414
Learning Problems of Children (3 credits)

Prerequisite: EDUC C210 or C211. This course will describe the causes and kinds of learning problems in young and school-age children. Students will be taught the pre-academic skills that are involved in learning, as well as specific techniques to help youngsters overcome and/or cope with these difficulties. Educational techniques for dealing with problems in reading, mathematics, spelling, writing, and language will be discussed. The whole area of learning problems will be related to children's social, emotional, and intellectual levels.

EDUCATION C416
Education of the Gifted (3 credits)

Prerequisite: EDUC C210. This course will discuss the special educational problems of gifted children. It will also assess the effectiveness of the techniques usually employed to deal with these problems.

EDUCATION C417
Education of the Culturally Disadvantaged (3 credits)

Prerequisite: EDUC C210. This course will describe the cognitive, social, and emotional problems of culturally disadvantaged children, and discuss educational techniques for coping with their problems.

EDUCATION C421
Sociology of Education (6 credits)

Prerequisite: SOCI C200. The social organization of education activities. The role of educational institutions in socialization, social control, and technology. Education and stratification, mobility and social change.

EDUCATION C426
Selected Topics in Comparative Education I (3 credits)

Prerequisite: Six credits in Education. The study of current educational issues and problems (e.g. language, nationalism and education; Educational Problems in Multi-ethnic societies; Colonialism, Neo-Colonialism and Education; Socialism and Education; Political

Socialization; Education in Literature) from a comparative perspective, with particular emphasis on educational systems and practice in Canada, the United States, the United Kingdom, Western Europe, the Soviet Union, China, and the Third-World countries. The special topics and comparative examples may differ from year to year, accommodating the interests of the instructor and students.

EDUCATION C427
Selected Topics in Comparative Education II (3 credits)
Prerequisite: Six credits in Education. The study of educational change and alternatives (e.g., socio-political alternatives; cultural pedagogical alternatives; educational implications of technological and economic theory; elitism and egalitarianism in Education) from a comparative perspective, with particular emphasis on educational systems and practices in Canada, the United States, the United Kingdom, Western Europe, the Soviet Union, China, and Third-World countries. The special topics and comparative examples may differ from year to year, accommodating the interests of the instructor and students.

EDUCATION C430
Philosophy of Education (6 credits)
Prerequisite: Three credits at university level in Philosophy or EDUC C230. The application of philosophical method, with particular reference to the aims, methods, discipline, and concepts of education, is considered in this course. Students will be expected to become familiar with the principal authors and with the current periodical literature in the field of philosophy of education.

EDUCATION C431
Honours Essay in Education (6 credits)
Open to third-year students in Honours in Education and Philosophy (or to others by permission of the Department).

EDUCATION C432
Seminar in Epistemology and Education (3 credits)
Prerequisite: EDUC C430, or permission of the Department. Theories of knowledge are considered in this course, with special attention being given to the bearing of such topics as perception, evidence, truth, knowledge, and belief as relating to educational thought and practice. Students will be expected to become familiar with recent periodical and other literature in the field.

EDUCATION C433
Seminar in Ethics and Education (3 credits)
Prerequisite: EDUC C430, or permission of the Department. Students in this course will study the principles and methods of moral justification in education. They will be referred to the writing of main authors and recent periodical literature.

EDUCATION C434
Seminar in Aesthetics and Education (3 credits)
Prerequisite: EDUC C430, or permission of the Department. The nature of aesthetic value and experience, and theories of art and beauty will be examined. The development of the emotions and imagination, and their functions in aesthetic awareness are central concerns of this course. Students will be expected to become familiar with the relevant literature in the field.

EDUCATION C435
Seminar in Philosophy and Education (3 credits)
Prerequisite: EDUC C430, or permission of the Department. This is an advanced seminar in philosophical analysis and theory, in which students will present papers on, and conduct discussions about, educational concepts, aims, and practices. Students will be expected to become familiar with the periodical and other literature in the areas under discussion.

EDUCATION C441
History of Educational Ideas (6 credits)
Prerequisite: Second-year standing. In this course, students will study major educational ideas and idea systems. These will be reviewed in philosophical, religious, political, and social perspective.

EDUCATION C442
Education in Canada (3 credits)
Prerequisite: Six credits in Canadian History. It is advisable that students have a reading knowledge of French. This course will study the history of Canadian education and, more particularly, the history of education in Québec.

EDUCATION C445
Education in Québec (3 credits)
Students in this course will study the contemporary movements in and structures of Québec education.

EDUCATION C461
Issues in Early Childhood Education (6 credits)
Prerequisite: Enrolment in Early Childhood Programmes. This course will provide a study of alternative practices and theories of education for preschool, kindergarten and primary children.

EDUCATION C469
Special Topics in Early Childhood Education (3 credits)
This course will deal with selected topics in early childhood education to be announced each year. The course will be designed to allow students to explore, in considerable depth, an area or problem in education methodology relating theoretical and applied aspects. Possible topics are, for example, Moral Development of the Young Child; Media and the Young Child; Teaching English as a Second Language to Young Children.

EDUCATION C471
Supervised Internship (6 credits)
This course is offered only to students enrolled in the Certificate in Education programme. Teaching internship will be carried out in the school where the student is employed. The students will be supervised and their teaching performance evaluated. The students are expected to demonstrate positive evidence of teaching competence and professional behaviour.
NOTE: Students must have achieved at least a B (75%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C472
Early Childhood Education Internship (Primary) (3 credits)
Prerequisite: Third-year standing in Early Childhood Specialization. This course in-

volves a six-week (full days) supervised teaching internship in one or more of the primary grades 1, 2 or 3. Students will be required to attend weekly seminars focusing on resources, methodologies, teaching strategies, behaviour management, classroom climate as well as on their individual specific problems.

NOTE: Students must have achieved at least a B (75%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C473
Early Childhood Kindergarten Internship (3 credits)

Prerequisite: Third-year standing in Early Childhood Education Specialization or Early Childhood Education Major. Students must be enrolled in EDUC C474 in the same semester. This course is a supervised kindergarten internship of five half days a week for one semester.

NOTE: A student must have achieved at least a B (75%) in this course in order to be recommended for teacher certification upon completion of the programme.

Students who have received credit for EDUC C470 may not take this course for credits.

EDUCATION C474
Early Childhood Internship Teaching Seminar (3 credits)

Prerequisite: Third-year standing in Early Childhood Specialization or Early Childhood Major. Students must be enrolled in EDUC C473 in the same semester. This course is the teaching component of the kindergarten internship. Students will rehearse and practise skills, discuss specific problems and concerns with the focus on relating theory to practice. Topics covered will include professional behaviour and expectations, behaviour management, curriculum planning, teaching strategies, record keeping, teacher-parent relationships as well as the practical evaluation of various kindergarten curriculum content approaches.

NOTE: A student must have acheived at least a B (75%) in this course in order to be recommended for teacher certification upon completion of the programme.

Students who have received credit for EDUC C470 may not take this course for credits.

EDUCATION C480
Special Methods of Teaching - Elementary (3 credits)

This course is offered only to students enrolled in the Certificate in Education programme. It will deal with methods of teaching in the elementary school. Emphasis will be placed on the practical application of educational theories.

NOTE: Students must have achieved at least a C (65%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C481
Special Methods of Teaching - Secondary (3 credits)

This course is offered only to students enrolled in the Certificate in Education programme. This course will deal with methods of teaching in a high school subject. The course will be designed to suit the individual student's field of specialization.

NOTE: Students must have achieved at least a C (65%) grade in this course in order to be recommended for teacher certification upon completion of the programme.

EDUCATION C490
Children with Health Problems and Handicaps I (3 credits)

Prerequisite: EDUC C211 and C262; second-year standing in Early Childhood Specialization or Child Studies Major or permission of the Early Childhood Director. An overview of the extent and significance of childhood illness, accidents, death and handicaps. Consideration of some of the needs of children and their families and means of overcoming some of the barriers to sound development and family well-being. Topics include: societal attitudes, bonding and separation, children's concepts of the body, illness, hospitalization and death, institutionalization, mainstreaming and normalization.

NOTE: This material has been offered in the past under EDUC C497 or C498. Students taking this course should check with their departmental adviser.

EDUCATION C491
Children with Health Problems and Handicaps II (3 credits)

Prerequisite: EDUC C490. A continuation from EDUC C490, this course will explore in greater depth and at a more practical level: children's responses to illness and health-related care, and specific interventions which can help foster sound development and family well-being. Topics will include: preparation for resolution of stress provoking events; the helping relationship; the therapeutic use of play, creative expression and children's literature. The underlying principles and approaches are relevant for the educator working with children in any setting, and particularly for those contemplating future work with these children and their families. Laboratory work outside the class is required.

NOTE: This material has been offered in the past under EDUC C497 or C498. Students taking this course should check with their departmental adviser.

EDUCATION C497
Selected Topics in Education (3 credits)

Prerequisite: EDUC C201, or one year's teaching experience, or permission of the Department. Special topics accommodating the interests of the instructor and students. The topics studied may differ from year to year.

EDUCATION C498
Selected Topics in Education (3 credits)

Prerequisite: Permission of the Department. A student repeating EDUC C497 registers for credits under EDUC C498.

31.090.2 ADULT EDUCATION
(formerly Andragogy)

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

42 ***Major in Adult Education**
15 ADED C200[6], C210[3], C220[3], C230[3]
6 ADED C330[3], C331[3]
9 Chosen from ADED C340[3], C341[3], C342[3], C350[3]
6 Chosen from ADED C410[3], C460[3], C461[3], C492[3], C493[3]
6 Chosen from ADED C490[6] or C491[6]
**Admission suspended for 1983-84.*

30 **Certificate in Adult Education**

The Department of Education offers a 30-credit Certificate Programme consisting of both required and optional courses: core courses in the foundation of adult education, courses related to functions, skills and competencies of adult educators in the field of practice, and courses related to some dimensions which constitute the body of knowledge of adult education.

Admission Requirements
In addition to General Admission Requirements, candidates to the programme in Adult Education should normally be actively involved in some area of adult education *or* have the equivalent of one year prior experience in the field, either as leaders, trainers, teachers, volunteer workers, administrators, etc. in academic institutions, business and industry, government or community organizations. Applicants to the programme will be interviewed by the Programme Director.

(Courses must be taken in an aproved sequence)

Phase I
6 ADED C200[6]
Phase I or II
3 Chosen from ADED C220[3], ADED C230[3], ADED C240[3]
Phase II and III
6 Chosen from ADED C333[3], ADED C343[6], ADED C351[3], ADED C370[3]; APSS C441[3], C452[3]
6 Chosen from ADED C410[3], C412[3], C420[3], C440[3], C492[3], PSYC C380[3]
3 Chosen from cognate courses with the permission of the Director of the Certificate Programme
Phase IV
6 ADED C493[6]

NOTE: With permission of the Director of the Certificate Programme, a 200-level course may be taken prior to or concurrently with ADED C200.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

ADULT EDUCATION C200
The Nature of Adult Education (6 credits)

This course is designed to help students develop an understanding of the scope of adult education, both as a field of practice and as a field of study. Emphasis is placed on existing programmes, and the institutions and various agencies providing them. Basic concepts and principles of adult education are also examined and the course stresses active student participation and self-directedness.

NOTE: This course is a prerequisite for all 300- and 400-level courses in Adult Education.

ADULT EDUCATION C220
Adults as Learners (3 credits)

Prerequisite: ADED C200. This course examines the unique physiological, psychological and sociological characteristics of adults, their influence on adult learning and development and their implications for educational intervention. Attention is given to changes which occur at various stages of the adult life cycle and particularly to the dimensions which affect the adult's self-concept and orientation to learning, the motivations, needs and interests which cause adults to participate in educational activities.

ADULT EDUCATION C230
Roles and Competencies of Adult Educators (3 credits)

Prerequisite: ADED C200. The purpose of this course is to review the state of professionalization of adult education. General skills, knowledge and attitudes expected of adult educators regardless of the setting in which they work are examined. In addition, according to the participants' needs and interests, an opportunity is given to explore competencies related to the particular roles of, e.g., administrators, programme developers, trainers, leaders, instructors, counsellors, and volunteer workers.

ADULT EDUCATION C240
Introduction to Research in Adult Education (3 credits)

Prerequisite: ADED C200. This course is designed to introduce students as to how to gain access to and utilize major information sources in Adult Education. In addition, the course will examine research interests and problem areas studied in Adult Education and related fields, along with current trends and various methods of enquiry used.

ADULT EDUCATION C333
Methods and Techniques for Facilitating Adult Learning (3 credits)

Prerequisite: ADED C200. This course is designed to give an opportunity to adult educators to practise and improve their skills in facilitating adult learning. Different models of educational processes and optimal conditions for promoting adult learning are examined; attention will be given to small or large group methods and techniques, as well as to individualized learning formats.

NOTE: Students who have received credit for ADED C330 or C331 may not take this course for credits.

ADULT EDUCATION C343
Design and Assessment of Adult Learning Projects (6 credits)

Prerequisite: ADED C200. The purpose of this course is to assist participants in developing a clear working concept of various models of planning and assessing adult learning projects. To facilitate this understanding, the different steps of the process are closely examined and discussed, and participants are given an opportunity to design, conduct and evaluate a learning activity.

NOTE: Students who have received credit for ADED C340 or C341 or C342 may not take this course for credits.

ADULT EDUCATION C351
Administration of Adult Education Programmes (3 credits)

Prerequisite: ADED C200. This course is designed to develop a better understanding of the principles of organization and administration as they relate to educational programmes for adults. The course also examines the main factors which influence the provision of these programmes along with the various skills necessary at all levels of the decision-making processes: accessing needs, budgeting, staffing, and advertising.

ADULT EDUCATION C370
Workshops for Adult Educators (3 credits)

Prerequisite: ADED C200. The purpose of these workshops is to examine a number of topics and problems related to the field of adult education. The issues considered may differ from year to year; several workshops will be offered over one academic year and students are required to select four workshops from the package. The workshop format is designed to allow adult educators to participate in learning opportunities with flexibility in scheduling. Possible topics are: learning problems of adults, education of immigrants, women and continuing education, literacy and adult basic education, and adult education in rural areas.

ADULT EDUCATION C410
Adult Education in Canada and Quebec (3 credits)

Prerequisite: ADED C200. The purpose of this course is to examine the historical development and current state of adult education in Canada, with special reference to Quebec. Various factors which influenced the development of adult education in our society will be explored; the focus will be on present status, role and structure, and socio-cultural and philosophical underpinnings of the field.

ADULT EDUCATION C412
Concepts and Values in Adult Education (3 credits)

Prerequisite: ADED C200. This seminar is designed to encourage adult educators to reflect upon and question what one is engaged in and why. A selection of conceptual and philosophical issues underlying adult educational practice is critically examined and discussed. Attention is given to the meaning of words, the nature of ideas and values, the implications of assumptions and principles which are deemed specific in the sphere of the education of adults.

ADULT EDUCATION C440
Issues in the Practice of Adult Education (3 credits)

Prerequisite: ADED C200. The purpose of this seminar is to study and discuss current issues relating to the field and profession of adult education in general, along with more specific and local concerns. Group and individual interests will have an important bearing on the design of this course.

ADULT EDUCATION C492
Special Topics Seminar in Adult Education I (3 credits)

Prerequisite: ADED C200, or permission of the Department. The subject for the seminar will vary from year to year, reflecting recent developments in adult education, and the special interests of the students or the instructor.

ADULT EDUCATION C494
Special Topics Seminar in Adult Education II (3 credits)

Students who have received credit for ADED C492 may register for ADED C494 provided the subject matter is different.

ADULT EDUCATION C495
Integrative Seminar (6 credits)

Prerequisite: ADED C200. This seminar, to be taken during final year in the programme, is designed to assist individual students in acheiving a synthesis of their own experience in the light of acquired knowledge, skills, values and attitudes. The purpose of this course is to help each participant to clarify his/her aims and to structure his/her personal philosophy of adult education.

31.100 English

Chairman
A. BROES, *Associate Professor*

Professors
H. BEISSEL
R. BELKIN
M. BUTOVSKY
M. FOSTER
W. FRANCIS
D. KETTERER
P. MORLEY
R. PHILMUS
R. TOBIAS

Visiting Professor
T. WRIGHT

Associate Professors
R. ALLEN
G. AUCHINACHIE
M. BRIAN
A. BRUNE
H.R. FINK
G. GEDDES
J.S. HERZ
S. HOFFMAN
L.E. MacLEAN
R.K. MARTIN
L.R. MENDELSOHN
A. NEWELL
L.P. NOWICKI
B. OPALA
E. PECHTER
M. PHILMUS
L.J. POTEET
E.C. RONQUIST
G.D. SHEPS
R.J. SOMMER
J.R. SORFLEET
R.S. WAREHAM
K.E. WATERS

Assistant Professors
H. HILL
D. TAYLOR

Visiting Professor
S. MAYNE

Special Lecturers
J. BROWN
T. BYRNES
L. GEFIN
J. MILLER
C. SHAW

Writer-in-Residence
L. KEARNS

Adjunct Professors
E. SPENCER
M. TREMBLAY

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60* BA Honours in English*

12** Students must take 12 credits from among Groups A, B, and C, with not more than 6 credits from any one group.**
Group A
ENGL C256^6 or C257^3, and C258^3, C260^6, C262^6, C263^6, C267^6, C268^6
Group B
ENGL C271^3, C273^3, C275^3, C277^3, C280^3, C281^6, C282^6, C283^6, C284^6
Group C
ENGL C286^6 or C287^3, and C288^3, C297^3, C298^3, C304^6, C305^6, C390^6, C392^6

6 ENGL C290^6 or C291^3, and C292^3, C295^3, C296^3, C300^6 or C301^3, and C302^3, C376^6, C377^6

6 Chosen from ENGL C310^6 through C330^6 (excluding C320^6) and C430^6, C432^6

12 Chosen from ENGL C310^6 through C344^6 (excluding C320^6) and C430^6, C432^6

6 Chosen from ENGL C310^6, C311^3, C312^3, C320^6, C328^3, C329^3, C330^6

12 ENGL elective credits (6 credits may be chosen from approved cognate courses CLAS C211^3, C212^3)

6 Chosen from ENGL C310^6 through C499^3

**NOTE: At least 6 credits must be chosen from among Canadian literature courses ENGL C290^6 or C291^3, and C292^3, C376^6, C377^6.*

***NOTE: One of ENGL C225^6, C226^6, C227^6 may be substituted for courses in Groups B or C.*

60 BA Specialization in English

12* Students must take 12 credits from among Groups A, B, and C, with not more than 6 credits from any one group*
Group A
ENGL C256^6 or C257^3, and C258^3, C260^6, C262^6, C263^6, C267^6, C268^6
Group B
ENGL C271^3, C273^3, C275^3, C277^3, C280^3, C281^6, C282^6, C283^6, C284^6
Group C
ENGL C286^6 or C287^3, and C288^3, C297^3, C298^3, C304^6, C305^6, C290^6, C392^6

6 ENGL C290^6 or C291^3, and C292^3, C295^3, C296^3, C300^6 or C301^3, and C302^3, C376^6, C377^6

18 Chosen from ENGL C310^6 through C344^6 (excluding C320^6) and C430^6, C432^6

6 Chosen from ENGL C310^6, C311^3, C312^3, C320^6, C328^3, C329^3, C330^6

18 ENGL elective credits (6 credits may

be chosen from approved cognate courses CLAS C211[3], C212[3])

**NOTE: One of ENGL C225[6], C226[6], C227[6] may be substituted for courses in Groups B or C.*

42 BA Major in English

12* Students must take 12 credits from among Groups A, B, and C, with not more than 6 credits from any one group.*

Group A
ENGL C256[6] or C257[3], and C258[3], C260[6], C262[6], C263[6], C267[6], C268[6]

Group B
ENGL C271[3], C273[3], C275[3], C277[3], C280[3], C281[6], C282[6], C283[6], C284[6]

Group C
ENGL C286[6] or C287[3], and C288[3], C297[3], C298[3], C304[6], C305[6], C390[6], C392[6]

6 Chosen from ENGL C290[6] or C291[3], and C292[3], C295[3], C296[3], C300[6], or C301[3] and C302[3], C376[6], C377[6]

12 Chosen from ENGL C310[6] through C344[6]; C430[6], C432[6]

12 ENGL elective credits (6 credits may be chosen from approved cognate courses CLAS C211[3], C212[3])

**NOTE: One of ENGL C225[6], C226[6], C227[6] may be substituted for courses in Groups B or C.*

42 BA Major in Creative Writing*

12 Chosen from ENGL C225[6], C226[6], C227[6]

6 Chosen from ENGL C425[6], C426[6], and C427[6]

6 Chosen from ENGL C398[6]**, C411[6], C412[6], C413[6], C425[6], C426[6], C427[6]

6 Chosen from ENGL C290[6] or C291[3], and C292[3], C376[6], C377[6]

12 ENGL elective credits in literature courses.

**NOTE: Students wishing to register for the Major in Creative Writing must submit a portfolio of their work which may be submitted after the completion of 12 credits chosen from ENGL C225[6], C226[6], and C227[6]. The portfolio is waived when the average grade in these two courses is a 'B'.*

***NOTE: students intending to take ENGL C398[6] should note that ENGL C211[6] or C212[3] and C213[3] are prerequisite.*

24 Minor in English Language

24 Chosen from ENGL C211[6] or C212[3], and C213[3], C215[3], C255[6], C256[6] or C257[3] and C258[3], C310[6] or C311[3] and C312[3], C393[3], C394[3], C396[6], C430[3], C432[6], C475[3], C477[3]

24 Minor in English Literature

24 ENGL elective credits in literature courses*

**Students are encouraged to consult with the Department in selecting their courses.*

24 Minor in English Dramatic Literature

6 ENGL C320[6]

18 Chosen from ENGL C227[6], C427[6], or English elective credits in dramatic literature

30 Minor in Creative Writing

12 Chosen from ENGL C225[6], C226[6], C227[6]

12* Chosen from ENGL C398[6]**, C411[6], C412[6], C413[6], C425[6], C426[6], C427[6]

6 ENGL elective credits

**NOTE: At least 6 credits in this group must be chosen from C425[6], C426[6], or C427[6]*

***NOTE: Students intending to take ENGL C398[6] should note that ENGL C211[6] or C212[3] and C213[3] are prerequisite.*

72 BA Joint Honours in English and French

6 ENGL credits chosen from courses C256 through C284

6 ENGL credits chosen from courses C286 through C305; C376[6], C377[6], C390[6], C392[6]

6 ENGL C310[6], C311[3], C312[3], C320[6], C328[3], C329[3], C330[6]

12 ENGL credits chosen by genre or periods to parallel choice in French courses to be chosen in consultation with the departments

18 FRAN C251[6], C270[3], C271[3], C320[6] or C321[3], and C322[3], C324[6]

12 FRAN credits chosen by genre or periods to parallel choice in English courses to be chosen in consultation with the departments

6 Elective credits in English or French, outside the parallel periods or genres chosen

6 ENGL C498[6] or FRAN C498[6]*

**NOTE: Students intending to take FRAN C498[6] should note that it has a 400-level prerequisite. 6 of the 12 FRAN elective credits should therefore be chosen at the 400 level.*

72 BA Joint Honours in English and History
See Section 31.004

72 BA Joint Honours in English and one of the Modern Languages
See Section 31.004

72 BA Joint Honours in English and Philosophy
See Section 31.004

72 BA Joint Honours in English and Religion
See Section 31.004

60 BA Joint Specialization in English and History

6 Chosen from ENGL C256 through C284

6 ENGL C310[6], C311[3], C312[3], C320[6], C328[3], C329[3], C330[6]

12 ENGL credits chosen from two different periods to parallel History courses to be chosen in consultation with the departments

6 ENGL elective credits

12 HIST credits chosen from two different historical periods to parallel English courses to be chosen in consultation with the departments

18 HIST elective credits

60 BA Joint Specialization in English and one of the Modern Languages
See Section 31.004

200-level courses and 300-level courses without prerequisite are open to all students and may be used as English electives unless otherwise indicated.

Admission to the Honours programme is granted at the end of the student's first year, after Departmental review. Students seeking admission to the Honours programme on or after June 1, 1977, will be bound by the Honours requirements outlined in the Academic Regulations §16 of this calendar. Students who already had Honours status by June 1, 1977, will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

Written work may be required in English for these courses; please consult with the Department.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

ENGLISH C205
Basic Language Skills - Stage I (3 credits)

A course for native speakers of English who need basic training in written English. Emphasis is placed on grammar, sentence structure, paragraphing and other fundamentals of good usage.

NOTE: Students who have received credit for any ESL course may not take this course for credits.

This course may not count for credit within any English programme.

ENGLISH C206
Basic Language Skills - Stage II (3 credits)

A course for native speakers of English who need basic training in written English. This course is a continuation of ENGL C205.

NOTE: Students who have received credit for any ESL course may not take this course for credits.

This course may not count for credit within any English programme.

ENGLISH C209
Elements of Written English (3 credits)

Prerequisite: Permission of the Department. This course will deal with problems in written English that students encounter when writing university assignments. The course will begin a few weeks after the commencement of term. This will give students an opportunity to register for it after they have discovered deficiencies in their written English that hinder their academic progress.

ENGLISH C211
English Composition (6 credits)

This course is designed to help the students to develop skills in writing, research, and documentation, so that they may be able to prepare written work clearly, concisely, and in a logically organized way.

NOTE: This course may not be taken for credit with ENGL C212 or C213.

Students who have received credit for this course may not take subsequently any ESL course or ENGL C205 or C206.

ENGLISH C212
English Composition - Stage I (3 credits)

This course is the equivalent of the first half of ENGL C211. It is designed to provide students with basic training in writing. Stress will be laid on the development of skills in the writing of good expository prose through a study of the basic rules of grammar, in the organization of essays, in effective sentence construction and diction, in effective paragraphing, and in paraphrasing and summarizing.

NOTE: Students who have taken ENGL C211 may not take this course for credit.

Students who have received credit for this course may not take subsequently any ESL course or ENGL C205 or C206.

ENGLISH C213
English Composition - Stage II (3 credits)

Prerequisite: ENGL C212 or permission of the Department. This course is the equivalent of the second half of ENGL C211. It develops further the writing skills acquired in ENGL C212. The aim of this course is two-fold: a) to develop skill in writing, appropriate to the audience; and b) to familiarize students with research techniques necessary for the preparation of term papers and other written accounts for business and academic purposes. Instruction will focus on the techniques of persuasion, narration, and description, on logical structure, and how to use the library.

NOTE: Students who have credits for ENGL C211 may not take this course for credit.

Students who have received credit for this course may not take subsequently any ESL course or ENGL C205 or C206.

ENGLISH C215
Rhetoric (3 credits)

An inquiry into the nature and function of Rhetoric (Classical and "New") and of rhetorical criticism; a study of the fundamentals and some of the refinements of prose style; logical and rhetorical analysis, and original compositions.

ENGLISH C225
Creative Writing: Poetry (6 credits)

A seminar in the writing and criticism of poetry, including detailed discussion and written criticism of the students' work, and, at the discretion of the instructor, the study of selected poems.

ENGLISH C226
Creative Writing: Prose (6 credits)

A seminar in the techniques of short fiction, including investigations of and exercises in a variety of creative and technical problems, as well as analysis and criticism of the students' own work. Students may be required to read selected works of short fiction.

ENGLISH C227
Creative Writing: Drama (6 credits)

A seminar in the writing of plays, including an exploration of dramatic forms and techniques. The students are expected to submit work of their own for discussion and analysis.

ENGLISH C232
The Oral Interpretation of Poetry and Drama (6 credits)

The aim of this course is to demonstrate the close relationship between the rhythm and texture of the spoken word and meaning in poetry and drama. We shall read aloud poems and scenes from plays, studying the impor-

tance of emphasis to meaning and (in the latter) the relationship of dialogue to character.

ENGLISH C234
The Bible and English Literature (6 credits)
A study of the literary handling of Biblical material and the literary uses of Biblical allusion in English Literature by authors such as Milton, Bunyan, Blake, Byron, and T.S. Eliot.

ENGLISH C237
Children's Literature (6 credits)
A survey and analysis of literature for children, undertaken with the aim of developing a critical vocabulary, and of arriving at workable standards of assessment. The kinds of literature discussed will include works written for adults, but traditionally read by children as well, works specifically written or adapted for children, fairy tales, and other children's versions of folklore and myth, nursery rhymes, and other children's verse. The course will be of general interest to students of literature, and should prove especially helpful to those who teach children in the schools.

ENGLISH C238
Canadian Children's Literature (3 credits)
This course examines the ways in which elements of the Canadian experience, such as language, setting, folklore, and history, have contributed to the content and tradition of children's literature in Canada.

ENGLISH C239
Topics in Children's Literature (3 credits)
This course deals with specific topics, such as the works of an author or group of authors, or a particular theme, or development of a genre. The topics to be studied may vary from year to year.

ENGLISH C240
Topics in Children's Literature (3 credits)
Students who have received credit for ENGL C239 may register for ENGL C240 provided the subject matter is different.

ENGLISH C244
Special Topic in English I (3 credits)
A basic, or introductory, course in a special subject of general interest, for which no prerequisite in English are necessary. The subject matter will vary from year to year.

ENGLISH C245
Special Topic in English II (3 credits)
A basic, or introductory, course in a special subject of general interest, for which no prerequisite in English are necessary. The subject matter will vary from year to year.

ENGLISH C249
Women in Literature I (3 credits)
A selection of short stories, poems, and plays by authors such as Ibsen, Lawrence, Mailer, Pinter, and MacEwen, in which woman is of major importance, either as the central experiencing character in adolescence, maturity, and old age, or as the embodiment of sexual archetypes and social roles.

ENGLISH C250
Women in Literature II (3 credits)
Prerequisite: ENGL C249, or a course which has stressed the novel as form. A study of some women novelists emphasizing Charlotte Brontë, Woolf, Lessing, and Atwood, and including others from among George Eliot, Rhys, Plath, Drabble, Engel, Watson, and Munro.

ENGLISH C251
Selected Topics in Literature Written by Women I (3 credits)
This course explores the ways in which women have employed conventions of such literary genres as poetry, the novel, and the drama to define their own lives and those of their contemporaries. The emphasis will be on literary analysis of the works. The course will also deal with the social and historical circumstances which are relevant to the works in question. The texts studied, the themes and concepts pursued, will vary from year to year.

ENGLISH C252
Selected Topics in Literature Written by Women II (3 credits)
A student repeating ENGL C251 for credits will register under ENGL C252.

ENGLISH C254
Psychology and Literature (6 credits)
A study of the relationship between the basic theories of psychology or psychoanalysis and literature through a consideration of selected literary works, such as novels, poems, dramas, and fairy tales.

ENGLISH C255
Translation (6 credits)
Prerequisite: Fluency in both French and English. Intensive work to improve the student's skill at translating a variety of texts from French to English. Emphasis will be placed on non-literary texts. Training will be given in style and idiom. The course will help the student gain proficiency in rendering a variety of French texts into idiomatic English prose.

ENGLISH C256
Major Writers in English (6 credits)
An introduction to major periods of English literature through the study of such representative authors as Chaucer, Shakespeare, Marlowe, Jonson, Donne, Milton, Swift, Pope, Blake, Coleridge, Wordsworth, Keats, Shelley, Dickens, Hardy, Browning, Tennyson, Conrad, Lawrence, Yeats, Eliot, Woolf, Joyce.
NOTE: This course may not be taken for credit with ENGL C257 or C258.

ENGLISH C257
Introduction to English Literature I
(3 credits)
An introduction to Chaucer, Spenser, Shakespeare, Milton, and other major English authors of the Middle Ages and the sixteenth and seventeenth centuries.
NOTE: This course may not be taken for credit with ENGL C256.

ENGLISH C258
Introduction to English Literature II
(3 credits)
A continuation of ENGL C257. An introduction to Swift, Pope, Wordsworth, Tennyson, Yeats, T.S. Eliot, and other major English authors of the eighteenth, nineteenth and

twentieth centuries.

NOTE: This course may not be taken for credit with ENGL C256.

ENGLISH C260
Myth and Ideas in Literature (6 credits)

The sources, literary development, and continuing functions of some of the myths which generate our ideas, and some of the ideas which rationalize our myths. In various years the emphasis may be on the history, structure, or continuing creation of myth and idea.

NOTE: Students who have received credit for ENGL C259 may not take this course for credit.

ENGLISH C262
Medieval Literature in Translation (6 credits)

An introductory study of some major works in England and Europe between 400 and 1400, beginning with St. Augustine, and including examples of epic, Grail literature, and courtly romance such as *Beowulf, The Song of Roland, The Cid,* Chrétien de Troyes' *Parsifal, Tristan and Isolde, The Romance of the Rose,* and parts of Dante's *Divine Comedy.*

ENGLISH C263
European Literature from the Middle Ages to the Onset of Modernism (6 credits)

A study of some of the classical works of European literature from Dante to Dostoevsky, including such writers as Boccaccio, Rabelais, Cervantes, Rousseau, and Goethe, with emphasis on evolving cultural patterns leading from Faith to Reason, and beyond.

ENGLISH C267
The Origins of Drama (6 credits)

An introductory study of Greek and Roman dramatists, and the medieval drama, both English and Continental. The course will be concerned with dramatic types, theory and form, and with the significance of this drama to the later English stage.

ENGLISH C268
Masterpieces of English Literature before 1603 (6 credits)

An introduction to the origin and development of English literature in the Old English, Medieval, and Tudor periods, through a reading of *Beowulf* (in translation), and authors such as Chaucer, Malory, Spenser, More, and Marlowe.

ENGLISH C271
Practical Criticism (3 credits)

A close examination of literary works of every genre and most major periods from a variety of critical perspectives.

ENGLISH C273
Fiction (3 credits)

A study of the development of the novel as a literary genre through the reading of novels by authors such as Defoe, Fielding, Austen, Dickens, and Joyce.

ENGLISH C275
Poetry (3 credits)

A study of poetry and its forms, with emphasis upon the art of close reading.

ENGLISH C277
Drama (3 credits)

A study of a varied selection of plays from both a historical and a generic point of view that will introduce students to the problems and delights of reading, visualizing, making and seeing plays.

ENGLISH C280
Short Fiction (3 credits)

A study of forms and techniques of the short story, the novella, and what have come to be called in contemporary literature, "fictions".

ENGLISH C281
Tragedy (6 credits)

A study of the varieties of tragic form and sensibility in Western literature. The course includes writers chosen from antiquity to the present, both inside and outside the English tradition, such as Shakespeare, Euripides, Hardy, Tolstoy, Webster, Racine, Faulkner, Buchner, Rilke, and Chekhov.

ENGLISH C282
Comedy (6 credits)

A study of the nature and varieties of comic form and sensibility in Western literature. The course includes writers chosen from antiquity to the present, both inside and outside the English tradition, such as Aristophanes, Cervantes, Jonson, Moli re, Sterne, Gogol, Balzac, Leacock, and Amis.

ENGLISH C283
Satire (6 credits)

A study of the nature and varieties of satire. The course includes writers chosen from antiquity to the present, both inside and outside the English tradition, such as Juvenal, Lucian, Chaucer, Erasmus, Swift, Voltaire, Orwell, Waugh, Beckett, Roth, Richler, and Grass.

ENGLISH C284
Critical Approaches to Literature (6 credits)

A study of the major theories and their practical application to works of literature, with special emphasis on twentieth-century criticism.

ENGLISH C286
Twentieth-Century British Literature (6 credits)

A study of twentieth-century British authors such as Joyce, Yeats, Woolf, Shaw, E.M. Forster, Waugh, T.S. Eliot, Auden, and Lessing.

NOTE: This course may not be taken for credits with ENGL C287 or C288.

ENGLISH C287
Modern British Literature (3 credits)

A study of modern British authors, such as Hardy, Hopkins, Conrad, Lawrence, E.M. Forster, Yeats, and T.S. Eliot.

NOTE: This course may not be taken for credits with ENGL C286.

ENGLISH C288
Contemporary British Literature (3 credits)

A study primarily of post-World War II British authors such as Beckett, Thomas, Osborne, Pinter, Auden, and Lessing.

NOTE: This course may not be taken for credits with ENGL C286.

ENGLISH C290
Canadian Literature (6 credits)

An introductory survey of Canadian prose and poetry, written in or translated into Eng-

lish, from their origins to the present.

NOTE: This course may not be taken for credits with either ENGL C291 or C292.

ENGLISH C291
Canadian Fiction (3 credits)

Through readings in fiction, this course will examine themes and styles in Canadian Literature.

NOTE: This course may not be taken for credits with ENGL C290.

ENGLISH C292
Canadian Poetry (3 credits)

Through readings in poetry, this course will examine themes and styles in Canadian Literature.

NOTE: This course may not be taken for credits with ENGL C290.

ENGLISH C295
Commonwealth and Third-World Literature Written in English I (3 credits)

Selected novels, short stories, and the poetry from West Africa, East Africa, and the Caribbean.

ENGLISH C296
Commonwealth and Third-World Literature Written in English II (3 credits)

Selected novels, short stories, and poetry from South Africa, Zimbabwe, India, Australia, and New Zealand.

ENGLISH C297
Modern Fiction I (3 credits)

A study of major American and European novelists of the earlier modern period, such as Melville, Dostoevsky, Tolstoy, Conrad, Kafka, Joyce, Mann, and Faulkner.

ENGLISH C298
Modern Fiction II (3 credits)

A study of major American and European novelists of the later modern period such as Malraux, Sartre, Camus, Kazantzakis, Solzhenitsyn, Bellow, and Pynchon.

ENGLISH C300
American Literature (6 credits)

A survey of the literature of the United States, beginning with the early writers and their optimistic vision of a new society, and studying such problems as the transformation and inversions of the "American Dream" in such writers as Poe, Hawthorne, Melville, Twain, Whitman, and Fitzgerald.

NOTE: This course may not be taken for credits with ENGL C301 or C302.

ENGLISH C301
American Literature: Nineteenth Century (3 credits)

A study of major nineteenth-century American writers such as Poe, Thoreau, Emerson, Hawthorne, Melville, Whitman, and Dickinson.

NOTE: This course may not be taken for credits with ENGL C300.

ENGLISH C302
American Literature: Twentieth Century (3 credits)

A study of major twentieth-century American writers such as Fitzgerald, Hemingway, Faulkner, Stevens, and Frost.

NOTE: This course may not be taken for credits with ENGL C300.

ENGLISH C304
Modern British and American Literature (6 credits)

A study of works in English from what has now emerged as the "Modern" period, extending from the turn of the century to World War II, and including such writers as Conrad, Joyce, Lawrence, Eliot, Yeats, Dylan Thomas, Stevens, Hemingway, Faulkner, Frost, and Synge.

ENGLISH C305
Modern European Literature (6 credits)

A survey of some of the major European writers (in translation) of the last hundred years, including such writers as Dostoevsky, Kafka, Mann, Strindberg, Valéry, Pirandello, and Sartre.

ENGLISH C310
Chaucer (6 credits)

A study of the major poetry of Chaucer, emphasizing *The Canterbury Tales* and *Troilus and Criseyde.*

NOTE: A maximum of 6 credits may be taken from ENGL C310, C311, and C312.

ENGLISH C311
Chaucer I: *The Canterbury Tales* (3 credits)

A study of *The Canterbury Tales* in general, and of six or seven tales in particular.

NOTE: A maximum of 6 credits may be taken from ENGL C310, C311, and C312.

ENGLISH C312
Chaucer II: *Troilus* and Early Poems (3 credits)

A study of *Troilus and Criseyde* and selected early poems.

NOTE: A maximum of 6 credits may be taken from ENGL C310, C311, and C312.

ENGLISH C315
English Renaissance Literature (6 credits)

A study of poetry and prose in English from More to Milton, including such writers as Wyatt, Surrey, Sidney, Spenser, Bacon, Donne, the Metaphysical poets, Jonson, the Caroline lyricists, Browne.

NOTE: This course may not be taken for credits with ENGL C317.

ENGLISH C316
Spenser (3 credits)

This course is intended to examine Spenser's works - *The Amoretti* and *The Faerie Queene* in particular - and their relations to the pertinent literary traditions, both English and continental.

ENGLISH C317
Elizabethan Prose and Poetry (3 credits)

Significant works of Elizabethan non-dramatic literature will be studied both as individual creations and as samples of the most important trends in non-dramatic verse and prose of the time.

NOTE: This course may not be taken for credits with ENGL C315.

ENGLISH C318
English Renaissance Drama (6 credits)

A study of English drama from the Tudor interlude to the closing of the theatres in 1642, including such dramatists as Kyd, Marlowe, Dekker, Jonson, Beaumont and Fletcher, Webster, Middleton, and Ford. Some consideration will also be given to Shakespeare.

ENGLISH C320
Shakespeare (6 credits)
An examination of Shakespeare's artistic achievement in some of the major plays.

ENGLISH C326
Seventeenth-Century Poetry (6 credits)
The course will put major emphasis on the poetry of Milton. Other poets to be studied will be selected from among Jonson, Donne, Herbert, Herrick, and Marvell.
NOTE: This course may not be taken for credits with ENGL C327.

ENGLISH C327
Early Seventeenth-Century Literature (3 credits)
A study of the poetry and some of the prose of the period, with special emphasis on the work of John Donne.
NOTE: This course may not be taken for credits with ENGL C326.

ENGLISH C328
Milton I: The Early Lyric Poetry and *Paradise Lost* (3 credits)
This course will cover the early lyric poems and masques (1629-37) and will undertake a detailed study of *Paradise Lost.*
NOTE: A maximum of 6 credits may be taken from ENGL C328, C329, and C330.

ENGLISH C329
Milton II: *Paradise Regained*, and Other Writings (3 credits)
This course will examine Milton's work in a variety of genres: tragedy *(Samson Agonistes)*, post-1645 sonnets, epic *(Paradise Regained)*, and selections from the prose essays and tracts.
NOTE: A maximum of 6 credits may be taken from ENGL C328, C329, and C330.

ENGLISH C330
Milton (6 credits)
A study of Milton's *Paradise Lost*, and other works such as the shorter poems, selected prose, *Paradise Regained*, and *Samson Agonistes.*
NOTE: A maximum of 6 credits may be taken from ENGL C328, C329, and C330.

ENGLISH C332
Literature of the Restoration and Eighteenth Century (6 credits)
A study of poetry and prose from the 1660's to the 1780's, including such major writers as Dryden, Swift, Pope, and Johnson.
NOTE: A maximum of 6 credits may be taken from ENGL C332, C333, and C334.

ENGLISH C333
Literature of the Restoration and Early Eighteenth Century (3 credits)
Major Augustan authors, including Dryden, Swift, and Pope.
NOTE: A maximum of 6 credits may be taken from ENGL C332, C333, and C334.

ENGLISH C334
Eighteenth-Century Literature (3 credits)
A study of major authors of the eighteenth century, such as Swift, Richardson, Fielding, and Johnson.
NOTE: A maximum of 6 credits may be taken from ENGL C332, C333, and C334.

ENGLISH C335
Restoration and Eighteenth-Century Drama (3 credits)
A study of the English stage from Dryden to Sheridan, including such dramatists as Etherege, Otway, Wycherley, Vanbrugh, Congreve, Gay, Lillo, and Goldsmith.

ENGLISH C338
Literature of the Romantic Period (6 credits)
A study of poetry and prose, chiefly that of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.
NOTE: A maximum of 6 credits may be taken from ENGL C338, C339, and C340.

ENGLISH C339
The Romantics I (3 credits)
The course will survey the major poets of the first part of the Romantic period (Blake, Wordsworth, Coleridge), with historical background and emphasis on the common technical and thematic elements of Romantic poetry.
NOTE: A maximum of 6 credits may be taken from ENGL C338, C339, and C340.

ENGLISH C340
The Romantics II (3 credits)
The course will survey the major poets of the second part of the Romantic period (Byron, Shelley, and Keats), with historical background and emphasis on the common technical and thematic elements of Romantic poetry.
NOTE: A maximum of 6 credits may be taken from ENGL C338, C339, and C340.

ENGLISH C342
Victorian Literature (6 credits)
A study of English poetry and prose from the 1830's to the end of the nineteenth century, including such major writers as Tennyson, Browning, Hopkins, Carlyle, Newman, Ruskin, Dickens, Thackeray, and George Eliot.
NOTE: A maximum of 6 credits may be taken from ENGL C342, C343,and C344

ENGLISH C343
Victorian Prose (3 credits)
A study of Victorian prose writers such as Dickens, George Eliot, Thackeray, Carlyle, Arnold, and Mill.
NOTE: A maximum of 6 credits may be taken from ENGL C342, C343, and C344.

ENGLISH C344
Victorian Poetry (3 credits)
A study of Victorian poets such as Tennyson, Browning, Hopkins, Swinburne, and Hardy.
NOTE: A maximum of 6 credits may be taken from ENGL C342, C343, and C344.

ENGLISH C346
Nineteenth-Century Fiction (6 credits)
Emphasis will be on the variety of fictional modes and styles used during this period, and their relevance to the social and intellectual history of the age. Novelists will be chosen from among the following: Austen, Scott, the Brontës, Dickens, Thackeray, and George Eliot.

ENGLISH C349
The English Theatre in the Nineteenth Century (3 credits)
A study of drama and dramatic modes from

Shelley to Shaw, including forms such as the melodrama, the Gothic thriller, Romantic verse drama, comedy, farce, burletta, operetta, and the "new drama" of the 1890's. Among features that may be considered are innovations such as limelight and the act curtain, the emphasis on spectacle, and the phenomena of the star system and the actor-manager.

ENGLISH C350
Late Victorian and Edwardian Literature (6 credits)
The end of the Victorian era and the beginnings of modernism. Novelists include James, Forster, Gissing, Woolf, Wilde, and Beardsley.

ENGLISH C354
Anglo-Irish Literature (6 credits)
Emphasis on the major English language writers of Ireland: notably O'Casey, Synge, Lady Gregory, Joyce, Yeats, and Beckett.

ENGLISH C357
The English Novel from Defoe to Dickens (6 credits)
A study of the origins and early development of the English novel, including such forms as the epistolary, the picaresque, the Gothic and historical novel, and such major writers as Fielding, Richardson, Sterne, Austen, Scott, the Brontës, George Eliot, and Thackeray.

ENGLISH C358
The English Novel from Dickens to Conrad (6 credits)
A study of the later Victorian and Edwardian novel, including such writers as Trollope, Meredith, Butler, Hardy, James, Wells, Galsworthy, Bennett, and Forster.

ENGLISH C360
Introduction to American Studies (6 credits)
An interdisciplinary consideration of the elements that go toward making up the "American Character" and the nature of art and culture in America: studies in literature, history, sociology, psychology, religion, and fine arts.

ENGLISH C362
American Writers of the '20s (6 credits)
A study of the American expatriate generation of the 1920's, with particular emphasis on Fitzgerald, Hemingway, Gertrude Stein, and their relationships with the cultural and artistic milieus centered in Paris.

ENGLISH C363
Modern American Fiction (3 credits)
The twentieth-century American novel up to 1945. Authors such as Norris, Dreiser, Fitzgerald, Hemingway, Faulkner, West, Henry Roth, and Wright will be read.

ENGLISH C364
Contemporary American Fiction (3 credits)
The twentieth-century American novel since 1945. Authors such as Mailer, F. O'Connor, Styron, Bellow, Updike, and Pynchon will be read.

ENGLISH C367
American Poetry (3 credits)
A study of the theory and practice of the major American poets since the midnineteenth century. Particular emphasis will be placed on important figures such as Whitman, Dickinson, Robinson, Frost, Cummings, Williams, Stevens, Pound, Crane, and Eliot, with some attention paid to developments in contemporary poetry as well.

ENGLISH C369
American Drama (3 credits)
A study of the plays of major American dramatists such as O'Neill, Williams, Miller, Albee, and Amuma Amiri Baraka (Leroi Jones).

ENGLISH C376
Canadian Literature from the 1820's to the 1930's (6 credits)
A study of prose, poetry, and drama, written principally in English, including such writers as McCulloch, De Mille, Kirby, Lampman, Roberts, Pratt, Grove, and Stead.

ENGLISH C377
Modern Canadian Literature (6 credits)
A study of prose, poetry, and drama, written principally in English, from the 1930's to the present, including such writers as Laurence, MacLennan, Richler, Lowry, Klein, Callaghan, Layton, Livesay, Birney, Avison, Reaney, Nowlan, and Ryga.

ENGLISH C378
Canadian Criticism, Thought, and Controversy (6 credits)
Prerequisite: Six credits in Canadian literature. An examination of the origins of literary criticism in Canada and the main aspects of its development to the present. The following critics will be considered: E.K. Brown, Edmund Wilson, H.A. Innis, G. Grant, Northrop Frye, Marshall McLuhan, Milton Wilson, George Woodcock, D.G. Jones, Margaret Atwood.

ENGLISH C379
Canadian Drama (3 credits)
Through readings in drama, this course will examine themes and styles in Canadian literature.

ENGLISH C382
Special Studies in Literature (6 credits)
Prerequisite: A period course in the area involved. A course devoted to a special topic, particular author or period of literary concern. The author, topic or period will vary from year to year.

ENGLISH C383
Special Studies in Literature (3 credits)
Prerequisite: A period course in the area involved. A course devoted to a special topic, particular author or period of literary concern. The author, topic or period will vary from year to year.

ENGLISH C384
Special Studies in Literature (3 credits)
Students who have received credit for ENGL C383 may register for ENGL C384 provided the subject matter is different.

ENGLISH C386
Literature, Ideology, and Society (6 credits)
Prerequisite: Second-year standing. Studies in the relations between literature and its social, cultural, and political environment. The content of this course may vary from year

to year and may include such topics as the relations between modern Anglo-Irish literature and the Irish nationalist movement; social change and the evolution of forms of characterization in fiction; and theory and practice of the avant-garde; or confessional modes in literature in relation to social and political messianism.

ENGLISH C390
Modern Poetry (6 credits)
An examination of the characteristic elements of twentieth-century poetry, in the context of a study of such major poets as Yeats, Eliot, Pound, Stevens, and Auden.

ENGLISH C392
Modern Drama (6 credits)
A study of the main currents in Western drama since Ibsen. This course will include such representative playwrights as Chekhov, Lorca, Strindberg, Pirandello, O'Neill, Brecht, Pinter, Beckett, and Weiss.

ENGLISH C393
History and Structure of the English Language (3 credits)
The course deals with the linguistic and historic development of the English language. The influence of language changes upon the literature will also be considered.

ENGLISH C394
English Prose Style (3 credits)
This course is designed to introduce students to the experience and assessment of the subtleties and varieties of prose style within the English tradition. It will include selections from the works of distinguished prose stylists.

ENGLISH C395
Science Fiction (6 credits)
An exploration of the varieties and nature of science fiction from H.G. Wells to Ursula LeGuin. Readings will include examples of English and American science fiction and translations of foreign works. Among the authors studied will be Huxley, Orwell, Zamyatin, Jack London, Capek, Borges, Calvino, and Lem.

ENGLISH C396
Advanced Composition (6 credits)
Prerequisite: ENGL C211; or C212 and C213; or permission of the Department. This course is designed for students already in control of the basic techniques of composition and who wish to perfect their ability to write clearly and effectively for business and professional purposes.

ENGLISH C397
Technical Writing (3 credits)
Prerequisite: ENGL C211 or C212 and C213 or permission of the Department. This course is designed for students who wish to develop their ability to write technical material, including reports, resumés, summaries, reviews, instructional and descriptive manuals, and similar items.

ENGLISH C398
Non-Fiction Writing (6 credits)
Prerequisite: ENGL C211; or C212 and C213; or permission of the Department. This course is designed for students already in control of the basic techniques of composition and who wish to develop further their ability to write in a variety of genres, including feature articles, news stories, biographies, reports, and reviews. The students' work is analyzed and evaluated by the instructor and by fellow classmates in a workshop setting.

ENGLISH C411
Script Writing for Radio, Screen, and Television (6 credits)
Prerequisite: ENGL C225, C226, C227, or permission of the Department. A workshop for the composition and development of creative scripts for radio, screen, and television. In any one year, the course may concentrate on one or two of these areas.

ENGLISH C412
Writing of Children's Literature (6 credits)
Prerequisite: ENGL C225, C226, C227, or permission of the Department. A workshop in the writing of prose, poetry, and drama for children. This course will involve an exploration of the literary techniques appropriate to the sensibilities of children and their world.

ENGLISH C413
Editing, Publishing, and Creative Research (6 credits)
Prerequisite: Permission of the Department. This course deals with such areas as magazines, small presses, and anthologies, that stimulate and promote literary activity. Emphasis will also be given to the research problems peculiar to the creative writer.

ENGLISH C425
Advanced Creative Writing: Poetry (6 credits)
Prerequisite: ENGL C225, or approved work. A workshop in the writing of poetry. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its material and techniques, to demonstrate their further progress in the craft.

ENGLISH C426
Advanced Creative Writing: Prose (6 credits)
Prerequisite: ENGL C226, or approved work. A workshop in the writing of fiction. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its materials and techniques, to demonstrate their further progress in the craft.

ENGLISH C427
Advanced Creative Writing: Drama (6 credits)
Prerequisite: ENGL C227, or approved work. A workshop in the writing of plays. The students are expected to enter this course with competence in the fundamentals of the form, and to go on, by experimenting more fully with its materials and techniques, to demonstrate their further progress in the craft.

ENGLISH C430
Old English (6 credits)
A study of the language and literature of the Anglo-Saxon era, chiefly of the *Beowulf* epic.

ENGLISH C432
Middle English Literature (6 credits)
A study of literature written in the English dialects from 1200 to 1500, including works

such as *Sir Gawain and the Green Knight* and other romances, early lyrics, religious prose, drama, and selections from Layamon's *Arthurian Brut,* Langland's *Piers Plowman,* and Malory's *Morte Darthur.*

ENGLISH C434
Special Studies in Shakespeare (3 credits)
Prerequisite: ENGL C320. An exploration in depth of individual plays and poems by Shakespeare, as well as particular problems presented by them. The topic considered in any one year might be "the Problem Plays", "the Romances", "Mask and Disguise", or "the Shakespeare play as Satire".

ENGLISH C438
The Rise of Prose Fiction (6 credits)
The course will explore the origin and development of European fiction in major works of the Middle Ages and the Renaissance, giving particular attention to their varying sources of inspiration, the narrative techniques they evolve, and the basic genres they establish. Works such as the romances of Chrétien de Troyes, the anonymous *Quest for the Holy Grail,* Boccaccio's *Decameron,* Malory's *Morte Darthur,* and Cervantes' *Don Quixote* will be studied.

ENGLISH C440
The Literatures of Canada and the United States (6 credits)
Prerequisite: ENGL C290; or C291 and C292; or C300; or C301 and C302. It is to the student's advantage to enter this course with knowledge of both literatures. Studies in common and contrasting problems in the two national literatures.

ENGLISH C459
Contemporary Literature (6 credits)
Prerequisite: Six credits in modern literature. A study of poetry, prose fiction, and drama, written in or translated into English since the Second World War. This course is intended for the student whose exploration of modern literature has already suggested to him something of the radical experimentation in form which characterizes contemporary literature.

ENGLISH C462
The Aesthetic and Religious Experience in Literature (6 credits)
Prerequisite: Second-year standing. An interdisciplinary course which explores the relationships between literature and religion through practical criticism, literary theory, aesthetics, and theology.

ENGLISH C475
Patterns of English Speech (3 credits)
The course will examine the relationship between spoken and written English from a variety of points of view: linguistic, semantic, philosophical, literary. The course will emphasize oral English and will include such topics as phonology, intonational patterns, dialect, slang.

ENGLISH C477
Advanced Stylistics (3 credits)
On the basis of linguistic studies made by the student in ENGL C475, this course will examine sentence structures, paragraph formation, tone, diction, argumentation.

ENGLISH C484
Theories and Criticism of Literature (6 credits)
Prerequisite: Six credits in literature. This course explores problems in criticism and theoretical approaches to literary art and experience from antiquity to the present, including such problems as symbol and metaphor, instruction and delight, mimesis and catharsis, form and inspiration, audience and social value, convention and genius.

ENGLISH C486
Seminar in a Special Subject (6 credits)
Prerequisite: Second-year standing. This course is designed to provide an opportunity for study and discussion of literature at a relatively advanced level. It is taught, from year to year, by different members of the English Department, and the subject changes to accord with the special interests of each instructor.

ENGLISH C487
Seminar in a Special Subject (6 credits)
Students who have received credit for ENGL C486 may register to ENGL C487 provided the subject matter is different.

ENGLISH C488
Seminar in a Special Subject (3 credits)
Prerequisite: Second-year standing. This course is designed to provide an opportunity for study and discussion of literature at a relatively advanced level. It is taught, from year to year, by different members of the English Department, and the subject changes to accord with the special interests of each instructor.

ENGLISH C489
Seminar in a Special Subject (3 credits)
Students who have received credit for ENGL C488 may register for ENGL C489 provided the subject matter is different.

ENGLISH C490
Joint Tutorial in History and English (6 credits)
A tutorial for students in the English and History Joint Honours Programme.

ENGLISH C491
Joint Tutorial in Modern Languages and English (6 credits)
A tutorial for students in the English and Modern Languages Joint Honours Programme.

ENGLISH C492
Seminar in a Special Subject (6 credits)
Prerequisite: Second-year standing. This course is designed to provide an opportunity for study and discussion of literature at a relatively advanced level. It is taught, from year to year, by different members of the English Department, and the subject changes to accord with the special interests of each instructor.

ENGLISH C493
Seminar in a Special Subject (6 credits)
Students who have received credit for ENGL C492 may register for ENGL C493 provided the subject matter is different.

ENGLISH C494
Seminar in a Special Subject (3 credits)
Prerequisite: Second-year standing. This

course is designed to provide an opportunity for study and discussion of literature at a relatively advanced level. It is taught, from year to year, by different members of the English Department, and the subject changes to accord with the special interests of each instructor.

ENGLISH C495
Seminar in a Special Subject (3 credits)
Students who have received credit for ENGL C494 may register for ENGL C495 provided the subject matter is different.

ENGLISH C496
Advanced Research and Thesis (6 credits)
A small number of seminars or tutorials on special themes and topics, to vary each year. Registration is limited to Honours students in their final year. All students must consult in advance with the Department.

ENGLISH C497
Independent Studies (3 credits)
A tutorial programme arranged with a member of the Department.

ENGLISH C498
Independent Studies (6 credits)
A tutorial programme arranged with a member of the Department.

ENGLISH C499
Honours Essay (3 credits)
Prerequisite: Open to third-year Honours students. Under the supervision of a faculty member, students will write a scholarly essay of some 7,500 to 10,000 words.

31.110 Etudes Françaises

Acting Chairman
P. D'HOLLANDER, *Professor*

Professors
M. EUVRARD
G. LABBE
G. LAURION
G. TAGGART

Professor in the Conservatory of Cinematographic Art, Sir George Williams Campus
S. LOSIQUE

Associate Professors
M. CATRY-VERRON
G. CHARPENTIER
A. JORDAN
C. LEVY
D. LEVY
P. L'HERAULT
M.F. LIGIER
P. PARC
O. RIGAULT
J. SCHNEIDER
L. SUGDEN
M. TIFFOU
N. TRUCHON
L. VAN TOCH
M. VERTHUY

Assistant Professor
J. WOODSWORTH

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

72 BA Joint Honours in French and History
See Section 31.004

72 BA Joint Honours in one of the Modern Languages and in French
See Section 31.004

72 BA Joint Honours in English and French

6	ENGL credits chosen from courses C256 through C284
6	ENGL credits chosen from courses C286 through C305; C376^6, C377^6, C390^6, C392^6
6	ENGL C310^6, C311^3, C312^3, C320^6, C328^3, C329^3, C330^6
12	ENGL credits chosen by genre or periods to parallel choice in French courses to be chosen in consultation with the departments
18	FRAN C251^6, C270^3, C271^3, C320^6 or C321^3, and C322^3, C324^6
12	FRAN credits chosen by genre or periods to parallel choice in English courses to be chosen in consultation with the departments
6	Elective credits in English or French, outside the parallel periods or genre chosen
6	ENGL C498^6 or FRAN C498^6*

**NOTE: Students intending to take FRAN C498$_6$ should note that it has a 400 level prerequisite. Six of the twelve FRAN elective credits should therefore be chosen at the 400 level.*

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

63 BA Honours in French Literature

12	Chosen from FRAN C270^3, C271^3, C320^6, C321^3, C322^3, C324^6, C370^3, C371^3, C372^3
9	Quebec Literature
9	Middle Ages to 16th-Century Literature
9	17th- to 18th-Century Literature
9	19th- to 20th-Century Literature
6	FRAN C498^6
9	Chosen from FRAN C262^6, C366^3, C367^3, C381^3, C382^3, C384^6, C460^3, C489^6

Other courses in literature may be chosen in consultation with the Department.

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

63 BA Specialization in French Literature

12	Chosen from FRAN C270^3, C271^3, C320^6, C321^3, C322^3, C324^6, C370^3, C371^3, C372^3
9	Quebec Literature
9	Middle Ages to 16th-Century Literature
9	17th- to 18th-Century Literature
9	19th- to 20th-Century Literature
6	FRAN C498^6
9	Chosen from FRAN C262^6, C366^3, C367^3, C381^3, C382^3, C384^6, C460^3, C489^6

Other courses in literature may be chosen in consultation with the Department.

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

42 BA Major in French Literature

6	FRAN C324^6
6	FRAN C251^6
6	Chosen from FRAN C270^3, C320^6 or C321^3 and C322^3; C370^3, C371^3, C372^3, C480^3, C481^3, C482^3, C483^3
24	Elective credits in French literature

NOTE: Prior to registration students must

have written approval for their programme from an authorized member of the Department.

24 Minor in Literature

24 Elective credits in French or Quebec Literature chosen in consultation with the Department.

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

60 BA Honours in Quebec Literature

6 FRAN C251[6]
3 FRAN C322[3] or C271[3]
18 Chosen from FRAN C350[3], C351[3], C352[3], C353[3], C354[3], C355[3], C356[3], C357[3], C358[3]
18 Chosen from FRAN C450[3], C451[3], C452[3], C453[3], C454[3], C455[3], C456[3], C457[3], C458[3], C459[3]
6 FRAN C498[6]
9 Elective credits in literature chosen in consultation with the Department.

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

60 BA Specialization in Quebec Literature

6 FRAN C251[6]
3 FRAN C322[3] or C271[3]
18 Chosen from FRAN C350[3], C351[3], C352[3], C353[3], C354[3], C355[3], C356[3], C357[3], C358[3]
18 Chosen from FRAN C450[3], C451[3], C452[3], C453[3], C454[3], C455[3], C456[3], C457[3], C458[3], C459[3]
6 FRAN C498[6]
9 Elective credits in literature chosen in consultation with the Department.

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

42 BA Major in Quebec Literature

6 FRAN C324[6]
6 FRAN C251[6]
6 Chosen from FRAN C270[3], C271[3], C320[6], C321[3], C322[3]
18 Chosen from FRAN C350[3], C351[3], C352[3], C353[3], C354[3], C355[3], C356[3], C357[3], C358[3]
6 Chosen from FRAN C450[3], C451[3], C452[3], C453[3], C454[3], C455[3], C456[3], C457[3], C458[3], C459[3]

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

72 BA Specialization in French/English Translation

NOTE:

1. Enrolment in the BA Specialization in French/English Translation is limited. Since the nature of the programme requires competence in French and English, applicants are required to take an entrance examination.

Priority of enrolment in translation courses at the 300 and 400 levels shall be given to students admitted to the Translation Programme.

2. Students admitted to the Translation Programme are required to achieve a C (65%) average or better in all translation courses in order to proceed to the next level and to graduate. Students who obtain a passing grade that is below C (65%) will be placed on conditional standing within the programme and will be so informed in writing by the Chairman of the Department. Students will be allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see calendar 16.3.8). Students who fail to repeat the course(s) within one year will be required to withdraw from the programme upon notification by the Chairman of the Department. Students who obtain a failing grade in any of the translation courses will be required to withdraw from the programme and will be so informed in writing by the Chairman of the Department.

Year I

6 FRAN C324[6], C400[3] and C401[3], or C404[3] and C405[3], or C406[3] and C407[3]
6 Chosen from ENGL C211[6], C398[6]
6 Chosen from FRAN C250[3], C251[6], C455[3], C456[3]
6 FRAN C260[3], C261[3]

Year II

9 FRAN C360[3], C361[3], C462[3]
3 FRAN C362[3] or C363[3]
3 Chosen from FRAN C365[3], C368[3], C369[3]
6 Linguistics in consultation with the Department
6 Elective credits in consultation with the Department

Year III

12 FRAN C364[3], C460[3], C461[3], C463[3]
3 Chosen from FRAN C470[3] or C471[3] or English course chosen in consultation with the Translation Programme adviser
6 Elective credits in consultation with the Department

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

48 BA Major in Language and Translation (French & English)

This programme is not designed for those who intend to pursue a professional career in translation. It will be of special interest to those whose work or career prospects require a proficiency in writing in English and French. Translation is the main pedagogical means for promoting such proficiency.

6 FRAN C302[3] and C303[3] or FRAN C400[3] and C401[3]
6 Chosen from FRAN C400[3] and C401[3] (if not taken previously), FRAN C324[6], FRAN C406[3] and C407[3], FRAN C412[3] and C413[3], FRAN C414[3] and C415[3], FRAN C418[3] and C419[3], FRAN C489[6]
6 Credits in culture or literature of the French-speaking world
6 Chosen from ENGL C211[6], C398[6]

6 credits in literature of the English-speaking world
6 FRAN C260[3] and C261[3]
9 Chosen from FRAN C360[3], C361[3], C362[3], C363[3], C365[3], C368[3], C369[3], C460[3], C461[3]
3 FRAN C364[3] or FRAN C462[3]

NOTE: Prior to registration students must have written approval for their programme from an authorized member of the Department.

42 BA Major in French Language

30 An approved sequence of language courses. The 30 credits must be chosen from courses that begin at a level not lower than FRAN C302 and be distributed as follows:
-A maximum of 18 credits from C206, C270, C271, C301, C302, C303, C304, C305, C306, C307, C308, C309, C310, C311, C312, C313, C316, C317, C318, C319, C414, C415, including a maximum of 6 credits "langue de spécialité" (C308 to C319).
-The other credits shall be chosen from C264, C265, C366, C367, C384, C400, C401, C404, C405, C406, C407, C408, C412, C413, C418, C419, C466, C467, C489.
6 credits in French literature
6 credits in French Department courses in linguistics or translation

NOTE: Prior to registration students must have written approval for their programme from the Department.

24 Minor in French Language

24 An approved sequence of language courses commencing at a level not lower than FRAN C204:
-A maximum of 18 credits from C204, C205, C206, C270, C271, C301, C302, C303, C304, C305, C306, C307, C308, C309, C310, C311, C312, C313, C316, C317, C318, C319, C414, C415, including a maximum of 6 credits "langue de spécialité" (C308 to C319).
-The other credits will be chosen from C264, C265, C366, C367, C384, C400, C401, C404, C405, C406, C407, C408, C412, C413, C418, C419, C466, C467, C489.

NOTE: Prior to registration students must have written approval for their programme from the Department.

30 Certificate in French Language

30 An approved sequence of courses commencing at a level not lower than FRAN C202. A minimum of 6 credits will be chosen from: C400, C401, C404, C405, C406, C407, C408, C366, C367, C384, C412, C413, C418, C419, C466, C467, C264, C265.

NOTE: Prior to registration students must have written approval for their programme from the Department.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

Les cours du département ayant reçu de nouveaux numéros, les étudiants trouveront une liste d'équivalences à la section 200.1.

FRANCAIS C200
French Language: Elementary I (3 credits)

This course is intended for students having no previous training in French. It includes a comprehensive introduction to the basic structures and vocabulary of French and should enable students to acquire an ability to speak and understand simple conversational French. Both oral and written aspects of the language are presented, with special emphasis on oral skills. Laboratory sessions are included.

FRANCAIS C201
French Language: Elementary II (3 credits)

Prerequisite: FRAN C200. Continuation of the previous course.

FRANCAIS C202
Langue française: niveau de transition I
(3 crédits)

Préalable: FRAN C201 ou l'équivalent. Ce cours s'adresse aux étudiants ayant suivi soit un an de français à l'université ou au niveau collégial, soit deux ans de français à l'école secondaire, ou l'équivalent. Ce cours permet aux étudiants d'accéder à un niveau de compréhension et d'expression suffisant pour communiquer en français oralement et par écrit avec une certaine assurance. Par l'utilisation de techniques de conversation dirigée, de travail systématique en classe et au laboratoire et d'exercices écrits, les étudiants acquerront un répertoire de structures et un vocabulaire plus étendu. Séances de laboratoire.

FRANCAIS C203
Langue française: niveau de transition II
(3 crédits)

Préalable: FRAN C202 ou l'équivalent. Suite du cours précédent.

FRANCAIS C204
Langue française: niveau intermédiaire I
(3 crédits)

Préalable: FRAN C203 ou l'équivalent. Ce cours s'adresse aux étudiants ayant suivi soit 4 ans de français à l'école secondaire, soit 2 ans de français à l'université, ou au niveau collégial ou l'équivalent. Par une étude et une pratique intensive des tournures du français courant, l'étudiant pourra acquérir l'aisance nécessaire à une communication orale et écrite spontanée. Le cours fournira également quelques aperçus sur le mode de vie des francophones.

FRANCAIS C205
Langue française: niveau intermédiaire II
(3 crédits)

Préalable: FRAN C204 ou l'équivalent. Suite du cours précédent.

FRANCAIS C206
Cours élémentaire de grammaire (3 crédits)
Préalable: être inscrit en FRAN C302 ou l'avoir suivi. Étude des règles fondamentales de la grammaire française. De nombreux exercices oraux et écrits permettront d'en préciser et d'en asseoir les bases.

FRANCAIS C220
Littérature moderne (6 crédits)
Préalable: FRAN C205 ou l'équivalent. Au moyen d'un choix de nouvelles, romans, pièces de théâtre, et poèmes de la francophonie, l'étudiant apprendra à "lire", et à apprécier les caractéristiques des différents genres.

FRANCAIS C250
Littérature québécoise en traduction
(3 crédits)
Étude de la littérature québécoise en traduction, surtout du point de vue de l'écriture (vocabulaire, style, images, etc.). Étude de textes sur le plan thématique, linguistique, stylistique, et structural. Analyses des meilleures traductions disponibles. Travaux pratiques en traduction, compositions, recherches.
Textes: Bessette *Le libraire;* Blais, *La Belle Bête;* Thériault, *Agaguk;* Hébert, *Kamouraska*, etc.
NOTE: Ce cours n'est pas crédité dans les programmes de mineure, de majeure, de BA spécialisé, et d'honneurs en littérature québécoise.

FRANCAIS C251
Culture et civilisation québécoises
(6 crédits)
Préalable: FRAN C205 ou l'équivalent. La culture et la civilisation québécoises vues à travers une de leurs expressions particulières: la littérature. Étude des grandes étapes de la production littéraire avec, comme toile de fond, un aperçu général de l'histoire politique, économique, sociale, et culturelle du Québec. Étude des principaux courants de pensée dans le Québec d'hier et d'aujourd'hui: l'expression littéraire comme reflet du mouvement de libération et du processus de décolonisation québécois. Ce cours vise en outre à ce que les étudiants entrent en contact avec diverses manifestations culturelles québécoises: théâtre, chanson, cinéma, etc.

FRANCAIS C254
Langue et condition des femmes au Québec I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Ce cours vise deux objectifs: examiner les différents aspects de la condition des femmes au Québec (évolution, débat actuel, etc.) et permettre à l'étudiant/e de se donner la compétence langagière en vue d'une participation au débat sur la condition féminine. Le cours sera structuré autour de certains thèmes ou dossiers tels que: le rôle des organismes politiques, gouvernementaux et syndicaux dans le débat; les questions d'actualité sociale concernant la femme: la publicité sexiste, la femme et la politique, la femme au foyer et la femme au travail, la femme et les arts, la santé des femmes, la pornographie, le viol, la violence, etc.
NOTE: Les étudiant/e/s francophones ne peuvent s'inscrire à ce cours.
Les étudiants qui ont suivi FRAN C312 ne peuvent obtenir de crédits pour ce cours.

FRANCAIS C255
Langue et condition des femmes au Québec II (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Ce cours vise des objectifs semblables à ceux du cours FRAN C254 et obéit aux mêmes principes. Le choix des thèmes sera toutefois différent.
NOTE: Les étudiant/e/s francophones ne peuvent s'inscrire à ce cours.
Les étudiants qui ont suivi FRAN C313 ne peuvent obtenir de crédits pour ce cours.

FRANCAIS C260
Stylistique comparée du français et de l'anglais (3 crédits)
Préalable: FRAN C307 ou l'équivalent. Le cours a pour but d'étudier les ressources stylistiques du français par rapport à celles de l'anglais. Le passage entre les deux langues est étudié en fonction des tendances particulières à chaque langue, tant du point de vue grammatical et lexical que du point de vue du contexte culturel.

FRANCAIS C261
Initiation à la traduction (3 crédits)
Préalable: FRAN C260 ou l'équivalent. Traduction de textes vers l'anglais et vers le français, avec étude des problèmes typiques soulevés par le passage d'une langue à l'autre.

FRANCAIS C262
Introduction à la linguistique française
(6 crédits)
Préalable: FRAN C303 ou l'équivalent. Introduction à l'analyse descriptive de la structure linguistique du français contemporain. Aperçus des aspects phonémiques, morphosyntaxiques, et lexicaux de la langue considérée comme un système. Applications théoriques et pratiques.

FRANCAIS C264
Phonétique I (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Étude systématique des habitudes articulatoires du français en comparaison avec celles de l'anglais. Introduction aux principes de l'analyse phonologique: groupes consonantiques possibles ou impossibles dans les deux langues. Étude de l'aspect physiologique de la parole; propriétés des voyelles et des consonnes en français. Étude des phénomènes prosodiques; intonation, rythme, accent. Aperçu de la phonétique acoustique et expérimentale.

FRANCAIS C265
Phonétique II (3 crédits)
Préalable: FRAN C264. Séminaire de recherche expérimentale. Initiation à l'utilisation des instruments de recherche. Étude détaillée de segments linguistiques du point de vue du timbre des voyelles, de l'articulation des consonnes, et des faits prosodiques (accent, rythme, intonation). Étude expérimentale de problèmes relevant de la comparaison des systèmes phonétiques du français et de l'anglais.

FRANCAIS C269
Histoire de la langue française (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Le but de ce cours est de familiariser l'étudiant avec les grands moments de la langue (Concile de Tours, Edit de Villers Cotterêts, etc.) afin de lui donner une vue panoramique et diachronique de l'évolution du français.

FRANCAIS C270
Introduction à l'histoire de la culture et de la civilisation françaises I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Abondamment illustré de projections, ce cours a pour but essentiel d'amener les étudiants à replacer la littérature dans son contexte historique, social, politique, et artistique.

FRANCAIS C271
Introduction à l'histoire de la culture et de la civilisation françaises II (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Suite chronologique du cours FRAN C270.

FRANCAIS C300
Niveau de transition III: l'art de vivre au Québec I (6 crédits)
Préalable: FRAN C203 ou l'équivalent. Cours intensif qui a pour but principal de permettre à l'étudiant de niveau intermédiaire de s'intégrer au milieu québécois, au moyen de discussions et d'activités dirigées par un professeur et animées par des moniteurs-étudiants francophones. Pratique systématique du français en classe. Participation en petits groupes à des activités culturelles dépassant le cadre scolaire.

FRANCAIS C301
Niveau de transition IV: l'art de vivre au Québec II (6 crédits)
Préalable: FRAN C300 ou l'équivalent. Suite du cours précédent.

FRANCAIS C302
Langue française: niveau d'approfondissement I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Le cours d'approfondissement est destiné aux étudiants qui possèdent déjà une bonne connaissance du français et qui ont besoin d'améliorer leur expression écrite et orale par une étude approfondie et une révision systématique de la grammaire. On attachera une importance accrue à l'acquisition d'une expression écrite précise et correcte.

FRANCAIS C303
Langue française: niveau d'approfondissement II (3 crédits)
Préalable: FRAN C302 ou l'équivalent. Suite du cours FRAN C302.

FRANCAIS C304
Le code oral I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Ce cours permettra à l'étudiant de se sentir à l'aise devant les diverses formes de la langue parlée. Étude des caractéristiques de la langue orale (marques phonologiques, lexicales et morphosyntaxiques). Initiation à l'identification des niveaux de langue du français parlé et aux variantes nationales et régionales par des exercices de compréhension et d'expression.

FRANCAIS C305
Le code oral II (3 crédits)
Préalable: FRAN C304 ou l'équivalent. Suite du cours FRAN C304.

FRANCAIS C306
Le code écrit I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Ce cours permettra à l'étudiant de distinguer les marques caractéristiques du style écrit de celles de la langue parlée (aux niveaux lexical, morphosyntaxique et stylistique). Des exercices appropriés permettront à l'étudiant de mettre en pratique les connaissances acquises.

FRANCAIS C307
Le code écrit II (3 crédits)
Préalable: FRAN C306 ou l'équivalent. Suite de cours FRAN C306.

FRANCAIS C308
Le français des sciences de la santé I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Cours destiné aux étudiants qui travaillent dans le domaine de la santé publique ou qui se préparent à une carrière dans ce domaine. Le cours permet à l'étudiant d'accéder à un corpus de vocabulaire, de structures, et de niveaux de langue choisis en fonction des situations de communication dans une clinique, un hôpital, un centre de santé communautaire, etc. Par la pratique en situation ou à partir de documents authentiques et par une recherche individuelle, l'étudiant apprendra à communiquer dans son milieu de travail.

FRANCAIS C309
Le français des sciences de la santé II (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Suite du cours FRAN C308.

FRANCAIS C310
Le français de la récréologie, de l'éducation physique et des sports I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Cours destiné aux étudiants qui travaillent déjà ou qui se préparent à oeuvrer dans le domaine de la récréologie et des sports. Les thèmes étudiés comprennent le conditionnement physique, le rôle du sport dans la société, le reportage sportif, l'organisation des loisirs dans la ville et dans la nature, etc. L'acquisition du vocabulaire, des structures, et des niveaux de langue choisis en fonction de ces thèmes se fera en situations de travail simulées, par la pratique et la discussion à partir de documents authentiques et par une recherche individuelle.

FRANCAIS C311
Le français de la récréologie, de l'éducation physique et des sports II (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Suite du cours FRAN C310.

FRANCAIS C312
Le français des sciences sociales I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Ce cours s'adresse aux étudiants qui désirent participer activement en français à la vie politique et aux activités communautaires du Québec d'aujourd'hui. Les thèmes étudiés incluent les organismes politiques, gouvernementaux, et syndicaux, et leurs rôles respectifs, ainsi que les questions d'actualité sociale concernant la femme, la famille, etc. Par des lectures et recherches individuelles, discussions, débats, et simulation de situations authentiques, les étudiants pourront acquérir la compétence langagière nécessaire pour jouer un rôle actif dans la société qui les entoure.
NOTE: Les étudiants qui ont suivi FRAN C254 ne peuvent obtenir de crédits pour ce cours.

FRANCAIS C313
Le français des sciences sociales II
(3 crédits)
Préalable: FRAN C205 ou l'équivalent. Suite du cours FRAN C312.
NOTE: Les étudiants qui ont suivi FRAN C255 ne peuvent obtenir de crédits pour ce cours.

FRANCAIS C316
Le français de la bibliothéconomie I
(3 crédits)
Préalable: FRAN C205 ou l'équivalent. Le cours est destiné aux étudiants qui travaillent ou se préparent à travailler dans les divers services des bibliothèques et des centres de ressources tels que le service du prêt, des acquisitions, du catalogue, etc. On étudie le vocabulaire et les structures nécessaires pour communiquer en français avec les usagers et pour échanger des renseignements en code oral ou écrit avec d'autres bibliothécaires, maisons d'édition, etc. On simulera des situations de travail, et chaque étudiant devra faire une recherche personnelle se rapportant à ses intérêts individuels.

FRANCAIS C317
Le français de la bibliothéconomie II
(3 crédits)
Préalable: FRAN C205 ou l'équivalent. Suite du cours FRAN C316.

FRANCAIS C318
Le français commercial I (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Le cours vise à faciliter la communication efficace orale et écrite dans le domaine des affaires. Il comprend une révision des structures, mais l'effort principal porte sur l'acquisition des termes et tournures de la langue du commerce, de la banque, et des affaires. On s'efforce d'enseigner ces termes en simulation de situation réelles, par ex.: au téléphone, entrevues, réunions, rédaction administrative et commerciale. On encourage les étudiants à entreprendre un projet individuel pour approfondir le vocabulaire de leur domaine particulier.

FRANCAIS C319
Le français commercial II (3 crédits)
Préalable: FRAN C205 ou l'équivalent. Suite du cours FRAN C318.

FRANCAIS C320
Panorama de la littérature française
(6 crédits)
Préalable: FRAN C303 ou l'équivalent. Ce cours, qui traite de la littérature française des origines à nos jours, s'adresse aux étudiants qui ont choisi la littérature comme domaine de spécialisation principale ou secondaire.
NOTE: Les étudiants qui ont suivi FRAN C321 et/ou C322 ne peuvent obtenir de crédits pour ce cours.

FRANCAIS C321
Panorama de la littérature française I
(3 crédits)
Préalable: FRAN C303 ou l'équivalent. Ce cours, qui traite de la littérature française des origines à la fin du règne de Louis XIV, s'adresse aux étudiants qui ont choisi la littérature comme domaine de spécialisation principale ou secondaire.
NOTE: Les étudiants qui ont suivi FRAN C320 ne peuvent obtenir de crédits pour ce cours.

FRANCAIS C322
Panorama de la littérature française II
(3 crédits)
Préalable: FRAN C303 ou l'équivalent. Ce cours complète le cours FRAN C321 par une étude de la littérature française, *de la Régence à nos jours. NOTE: Les étudiants qui ont suivi FRAN C320 ne peuvent obtenir de crédits pour ce cours.*

FRANCAIS C324
Initiation à la composition avancée
(6 crédits)
Préalable: FRAN C303 ou l'équivalent. Révision de la grammaire. Techniques de mise en oeuvre des moyens d'expression écrite et orale. Étude des différentes méthodes d'analyse et de composition, y compris la dissertation. Méthodologie de la présentation des travaux.

FRANCAIS C350
Les origines de la littérature québécoise
(3 crédits)
Préalable: FRAN C251. D'une littérature coloniale à une littérature autochtone. De la tradition orale à l'écriture. Étude de textes écrits avant l'École patriotique de Québec.

FRANCAIS C351
La littérature québécoise du 19ème siècle
(3 crédits)
Préalable: FRAN C251. Étude des grands mouvements littéraires du 19ème siècle et des principaux genres illustrés (conte, histoire, roman, essai, prose militante, etc.)

FRANCAIS C352
Le roman québécois du 20ème siècle I
(3 crédits)
Préalable: FRAN C251. Le roman québécois traditionnel: le roman de la fidélité, le roman d'observation, le roman de la solitude, le roman de la critique et de la satire. Étude de textes significatifs des romanciers et des romancières les plus marquants tels que: Hémon, Desrosiers, Grignon, Harvey, Savard, Ringuet, Guèvremont, Roy, Thériault, Langevin, Charbonneau, etc.

FRANCAIS C353
Le roman québécois du 20ème siècle II
(3 crédits)
Préalable: FRAN C251. Le roman de revendication sociale et le nouveau roman. Étude de textes significatifs des romanciers et des romancières les plus marquants tels que: Girouard, Renaud, Major, Blais, Ferron, Godbout, Jasmin, Bessette, Aquin, Ducharme, Beaulieu, Hébert, Larocque, Bersianik, etc.

FRANCAIS C354
La poésie québécoise du 20ème siècle I
(3 crédits)
Préalable: FRAN C251. De l'École littéraire de Montréal à l'automatisme. Étude de textes significatifs des poètes les plus marquants: Nelligan, Loranger, Beauchemin, Desrochers, Coderre, Hébert, Saint-Denys Garneau, Grandbois, Lanier, etc.

FRANCAIS C355
La poésie québécoise du 20ème siècle II
(3 crédits)
Préalable: FRAN C251. De l'automatisme à aujourd'hui: mouvements et formes poétiques. Étude de textes significatifs des poètes les plus marquants: Gauvreau, Hénault, Giguère, P.-M. Lapointe, Miron, Chamberland, R. Duguay, Garneau, Vanier, Francoeur, etc.

FRANCAIS C356
Le théâtre québécois I (3 crédits)
Préalable: FRAN C251. L'évolution du théâtre jusqu'à Marcel Dubé. Aperçu historique, thématique, et formel. Le théâtre historique, patriotique, comique, le mélodrame, le drame bourgeois. Formation des troupes québécoises. Étude de textes, avec une attention particulière portée au théâtre de Gélinas, Dubé, Hébert, Savard, etc.

FRANCAIS C357
Le théâtre québécois II (3 crédits)
Préalable: FRAN C251. Le nouveau théâtre québécois: théâtre social et politique, théâtre expérimental, théâtre d'improvisation, recherches de nouvelles formes théâtrales. Études de textes: Tremblay, Germain, Sauvageau, Loranger, Barbeau, Garneau, le Grand-cirque ordinaire, etc. En plus d'avoir recours aux textes publiés, ce cours s'appuiera d'une façon particulière sur la production courante du théâtre à Montréal.

FRANCAIS C358
L'essai et le développement de la pensée québécoise (3 crédits)
Préalable: FRAN C251. Etude des grands thèmes et de l'évolution des formes de la pensée québécoise à travers l'essai. Textes de: Buies, Nevers, LeMoyne, Vadeboncoeur, Dumont, Vallières, Rioux, Bouthillette, etc.

FRANCAIS C360
Traduction littéraire du français à l'anglais (3 crédits)
Préalable: FRAN C261. Traduction de textes français choisis par le professeur.

FRANCAIS C361
Traduction littéraire de l'anglais au français (3 crédits)
Préalable: FRAN C261. Traduction de textes anglais choisis par le professeur.

FRANCAIS C362
Traduction technique du français à l'anglais (3 crédits)
Préalable: FRAN C261. Initiation aux différents domaines de la traduction technique. Le semestre sera réparti en modules. Chaque module sera confié à un traducteur spécialisé dans un domaine particulier.

FRANCAIS C363
Traduction technique de l'anglais au français (3 crédits)
Préalable: FRAN C261. Initiation aux différents domaines de la traduction technique. Le semestre sera réparti en modules. Chaque module sera confié à un traducteur spécialisé dans un domaine particulier.

FRANCAIS C364
Théories de la traduction (3 crédits)
Préalable: FRAN C360 ou C361. Ce cours abordera les différentes façons d'envisager la traduction, de l'adaptation à la traduction automatique.

FRANCAIS C365
Adaptation publicitaire (3 crédits)
Préalable: FRAN C261 ou autorisation du département. Initiation à l'adaptation en français ou en anglais de textes publicitaires. A partir d'exemples empruntés à la publicité écrite, radiophonique, ou télévisée, les étudiants seront amenés à se familiariser avec les modifications linguistiques, affectives, et sociales inhérentes au travail d'adaptation.

FRANCAIS C366
Stylistique interne du français I (3 crédits)
Préalable: FRAN C262, ou autorisation du département. Analyse des ressources stylistiques du français: du mot au texte. Historique et théories contemporaines du style de l'analyse descriptive à la théorie des écarts. Étude des grands genres littéraires et de leur évolution.

FRANCAIS C367
Stylistique interne du français II (3 crédits)
Préalable: FRAN C366. Suite du cours C366 et applications pratiques.

FRANCAIS C368
Traduction spécialisée du français à l'anglais (3 crédits)
Préalable: FRAN C261. Initiation aux différents problèmes de la traduction administrative, commerciale et juridique du français à l'anglais. Chaque module du cours sera confié à un traducteur spécialisé dans un des domaines abordés.

FRANCAIS C369
Traduction spécialisée de l'anglais au français (3 crédits)
Préalable: FRAN C261. Initiation aux différents problèmes de la traduction administrative, commerciale et juridique de l'anglais au français. Chaque module du cours sera confié à un traducteur spécialisé dans un des domaines abordés.

FRANCAIS C370
Introduction au genre romanesque (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Le genre romanesque sera étudié dans une perspective spécifique qui pourra varier selon l'année et le professeur: théorie du roman, catégories de roman, sociologie du roman, étude d'un type particulier de roman.

FRANCAIS C371
Introduction à la poésie (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Le vers français: les formes fixes, le vers libre, le poème en prose; les notions de poétique et d'art poétique. Esthétique de la poésie, esthétique de la prose et leurs interférences; étude historique. La poésie, discours social ou asocial? Les différents aspects de la question, ou certains d'entre eux, seront étudiés, avec des exemples, dans une perspective qui pourra varier selon l'année et le professeur.

FRANCAIS C372
Introduction au théâtre en tant que genre (3 crédits)
Préalable: FRAN C303, ou l'équivalent. Ce cours permettra aux étudiants, à partir d'un petit nombre de textes, de voir les caractéristiques du théâtre en tant que genre, d'analyser sa fonction littéraire et sociale, d'étudier sa place particulière dans les différents mouvements littéraires en France.

FRANCAIS C373
Le cinéma français I (6 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du département. Ce cours, abondamment illustré de films ou d'extraits de films, retrace, en tout ou en partie, l'histoire du septième art dans ses manifestations les plus originales et les plus caractéristiques.

FRANCAIS C374
Le cinéma français II (6 crédits)
Les étudiants s'inscrivant pour la deuxième fois au cours de FRAN C373 obtiennent les crédits FRAN C374.

FRANCAIS C381
Principes de linguistique appliquée (français, langue seconde) I (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Analyse des problèmes théoriques de l'enseignement du français, langue seconde. Le mécanisme de l'interférence dans les domaines de la phonétique, de la morphologie, et de la syntaxe est étudié ainsi que les questions d'ordre psychologique, telles que la motivation et les "lois" de l'apprentissage.

FRANCAIS C382
Principes de linguistique appliquée (français, langue seconde) II (3 crédits)
Préalable: FRAN C381. Examen de diverses méthodes d'enseignement du français, langue seconde, avec démonstrations, classes modèles, etc.

FRANCAIS C383
Pédagogie de l'audio-visuel (6 crédits)
Préalable: Autorisation du département. Le cours s'adresse aux étudiants qui s'intéressent à l'usage des média dans l'enseignement. Au premier semestre, on étudiera les nouveaux rôles de l'enseignant face aux changements technologiques dans la société et à l'évolution des moyens de communication.
Le deuxième semestre sera consacré à l'étude pratique des techniques de présentation et de réalisation de documents audio-visuels à des fins éducatives. Travaux pratiques aboutissant à l'élaboration en équipe d'un document audio-visuel destiné à l'enseignement du français, langue seconde.

FRANCAIS C384
Évolution de la langue française (6 crédits)
Préalable: FRAN C303 ou l'équivalent. Ce cours retrace l'évolution de la langue, du latin vulgaire au français contemporain. Après une étude de la syntaxe de l'ancien français, ce cours relèvera les changements phonétiques, syntaxiques et lexicaux importants qui ont affecté le français au cours des siècles pour l'amener à son état actuel.

FRANCAIS C400
Langue française: niveau de perfectionnement I (3 crédits)
Préalable: FRAN 303, ou l'équivalent. Cours avancé de langue, axé sur l'étude de la grammaire et de la stylistique française, permettant à un étudiant qui possède déjà une connaissance approfondie de la langue de corriger ses lacunes, de nuancer son expression, et d'explorer les possibilités créatrices du langage. Le cours débouchera sur une connaissance de base des civilisations et des cultures francophones.

FRANCAIS C401
Langue française: niveau de perfectionnement II (3 crédits)
Préalable: FRAN C400, ou l'équivalent. Suite du cours FRAN C400.

FRANCAIS C404
Le code oratoire I (3 crédits)
Préalable: FRAN C303, ou l'équivalent. Correction phonétique, en particulier au niveau de la langue "soignée", techniques de présentation de la parole en public: pose de voix, gestes, affectivité, etc. Etude du vocabulaire et des procédures nécessaires pour convoquer une réunion, la diriger, y participer. Rédaction et présentation de divers types de rapports, allocutions, et conférences. Séances de travaux pratiques en laboratoire, 1½h. par semaine.

FRANCAIS C405
Le code oratoire II (3 crédits)
Préalable: FRAN C404, ou l'équivalent. Suite du cours FRAN C404.

FRANCAIS C406
Le code grammatical I (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Etude des règles fondamentales de la grammaire française à l'aide d'exercices d'analyse et de construction de phrases, ayant pour but la correction de l'orthographe et de la syntaxe.

FRANCAIS C407
Le code grammatical II (3 crédits)
Préalable: FRAN C406, ou l'équivalent. Ce cours a pour but de fixer définitivement les connaissances grammaticales pratiques des étudiants, en particulier de ceux qui envisagent de poursuivre leurs études de français à un niveau supérieur. La norme étudiée dans ce cours tiendra compte à la fois des principes de la grammaire traditionnelle et des progrès récents dans l'étude de la langue. L'étude des unités d'expression mènera, par des exercices pratiques d'analyse fonctionnelle, à l'examen approfondi de certains points de stylistique.

FRANCAIS C408
Cours libre de traduction (6 crédits)
Préalable: 6 crédits parmi FRAN C304, C305, C306, C307, C400, C401. Etude systématique des anglicismes; notions de méthodologie de la traduction; étude de quelques aspects de la stylistique comparée du français et de l'anglais; travaux pratiques de traduction de l'anglais au français.
NOTE: Ce cours est destiné particulièrement, mais non exclusivement, aux étudiants qui ne se spécialisent pas en traduction.

FRANCAIS C412
Initiation à la terminologie du droit I (3 crédits)
Préalable: FRAN C303, ou l'équivalent. Le cours s'adresse aux étudiants qui, dans leur profession ou celle à laquelle ils se préparent, doivent utiliser le vocabulaire de l'appareil judiciaire et la terminologie des différentes branches du droit. On étudiera les situations telles que conflit locataire - propriétaire, problèmes d'assurance, contrat de mariage, etc. Par une étude théorique et pratique de divers litiges, par une recherche individuelle et en jouant les rôles de divers personnages en situation, les étudiants approfondiront leurs connaissances de la langue du droit et apprendront à l'utiliser.

FRANCAIS C413
Initiation à la terminologie du droit II (3 crédits)
Préalable: FRAN C412. Suite du cours FRAN C412.

FRANCAIS C414
Le français de l'industrie I (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Le cours s'adresse à ceux qui, dans les entreprises, oeuvrent dans le domaine de la pro-

duction, ou qui se préparent à une carrière dans ce domaine. Les thèmes étudiés comprennent l'organisation d'une entreprise, les relations de travail, les étapes de la fabrication. En plus, chaque étudiant devra faire une recherche individuelle sur le vocabulaire qui se rapporte à son propre milieu et à sa situation.

FRANCAIS C415
Le français de l'industrie II (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Ce cours vise des objectifs semblables à ceux du cours FRAN C414 et obéit aux mêmes principes. Le choix des thèmes sera toutefois différent.

FRANCAIS C418
Le français de l'économie (3 crédits)
Préalable: FRAN C303 ou l'équivalent. Etude approfondie du vocabulaire de l'économie. Les principaux sujets abordés porteront sur les concepts fondamentaux de la science économique et sur les problèmes que pose le développement économique du Canada et du Québec. Le cours vise à faciliter à l'étudiant la compréhension de la documentation existant dans ces domaines et la communication orale et écrite de ses idées.

FRANCAIS C419
Le français de la finance et de la gestion (3 crédits)
Préalable: FRAN. C303 ou l'équivalent. Examen des principales difficultés de la langue française à partir d'une documentation axée sur le monde de la science de la gestion et de la finance. Etude approfondie du vocabulaire français dans certains domaines de la gestion tels que la gestion administrative (management), la gestion des ressources humaines, la gestion comptable et financière. Le cours vise à faciliter l'usage du français dans les relations d'affaires.

FRANCAIS C420
Littérature du moyen-age (6 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du département. Initiation à la langue et à la littérature du Moyen-Age, au moyen d'un choix d'oeuvres épiques, romanesques, lyriques, historiques, pouvant varier d'une année à l'autre. En plus d'acquérir une vue générale de la littérature et une connaissance approfondie de quelques oeuvres en traduction, l'étudiant se familiarisera suffisamment avec la langue pour ne plus être embarrassé à la lecture d'un texte en ancien français.

FRANCAIS C421
Panorama de la littérature française du moyen-age I (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. Au moyen d'une sélection d'oeuvres des IXème, Xème, XIème, et XIIème siècles, ce cours se propose de faire connaître et apprécier à l'étudiant les premières manifestations de la littérature française. (Serment de Strasbourg, chanson de geste, roman courtois, etc.)

FRANCAIS C422
Panorama de la littérature française du moyen-age II (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. Au moyen d'une sélection d'oeuvres des XIIIème, XIVème, et XVème siècles, ce cours se propose de faire connaître et apprécier les richesses littéraires du Moyen-Age depuis les fabliaux et le *Roman de la Rose* jusqu'au Grand Testament de François Villon.

FRANCAIS C425
Introduction à la vie littéraire du XVIème siècle (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. Les milieux. Les outils culturels. Les idéologies: problèmes, programmes, thèmes. Les événements littéraires: genèse, langue, portée.

FRANCAIS C426
La poésie du XVIème siècle: des doctrines aux oeuvres (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. Marot, Scève, Ronsard, D'Aubigné: leurs recherches, leur évolution, leur rayonnement.

FRANCAIS C427
La littérature en prose du XVIème siècle: du conte à l'essai (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. Orientation et fixation des types "humanistes" dans la littérature narrative et spéculative du XVIème siècle: Marguerite de Navarre, Rabelais, Montaigne.

FRANCAIS C428
La littérature de l'âge baroque (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. Les dissonances de l'âge classique - Du romanesque au burlesque et à la fuite poétique. Théophile de Viau, Saint-Amant, Rotrou, Cyrano de Bergerac.

FRANCAIS C429
Le siècle classique (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. La société classique: la Ville et la Cour, les salons, les honnêtes gens, les chefs-d'oeuvres classiques.

FRANCAIS C430
Le théâtre et le roman classiques (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. Les dramaturges face au règles classiques. La tragédie et la comédie classiques. Du roman précieux au roman classique.

FRANCAIS C431
Les moralistes (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. La pensée religieuse de Pascal à Bossuet. La morale laïque (La Fontaine). Les mondains (La Bruyère et La Rochefoucauld).

FRANCAIS C432
L'aube des lumières (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. La querelle des Anciens et des Modernes et la remise en question du classicisme. Intérêt pour les questions politiques, religieuses, et sociales. Vers le dix-huitième siècle.

FRANCAIS C433
Le siècle des lumières (6 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Le combat philosophique: ses origines, ses théories, ses modalités. Crise et critiques de la société française du XVIIème siècle: problèmes et solutions envisagées.
Les tendances littéraires: la question des genres; la question du goût: du beau objectif au beau subjectif; évolution de la langue: du style académique au style naturel.

FRANCAIS C434
Littérature du XVIIIème siècle: les oeuvres militantes (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. L'esprit philosophique: libre examen; recherche d'une vérité positive; aspects de la satire, religieuse et sociale: des *Lettres Persanes à l'Encyclopédie.*

FRANCAIS C435
Littérature du XVIIIème siècle: théâtre et roman I (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Une passion du siècle: le théâtre (la comédie psychologique, la comédie militante: de Lesage à Beaumarchais). Un rival: le roman. Orientations du genre: du roman picaresque au roman philosophique; du roman libertin au roman préromantique.

FRANCAIS C438
Le romantisme (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Le romantisme, phénomène européen; ses causes, ses caractères particuliers en France. Le Mal du siècle, ses vagues successives et leurs causes. Les grands thèmes romantiques.
Etude d'oeuvres caractéristiques de Chateaubriand, Lamartine, Vigny, Hugo, Musset.

FRANCAIS C439
Littérature de la période romantique (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Evolution des écrivains de la période romantique. La révolution de 1830 et "l'école du désenchantement". Etude, dans un choix de romans, de l'invention de techniques réalistes propres à exposer les problèmes éthiques, sociaux, et politiques d'une société qui s'urbanise et s'industrialise.

FRANCAIS C440
Littérature sous le second-empire: une littérature ironique et critique (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. On cherchera à étudier et à expliquer la rupture qui intervient dans la deuxième moitié du XIXème siècle dans la forme et dans la finalité des oeuvres littéraires, particulièrement, dans ce cours, chez Baudelaire et chez Flaubert.

FRANCAIS C441
La fin du siècle: entre la tour d'ivoire et le monde réel (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. On cherchera à étudier et à expliquer quelles tendances littéraires nouvelles s'expriment sous des termes comme réalisme, naturalisme, ou symbolisme, dans des oeuvres de Verlaine, Mallarmé, Rimbaud, Huysmans, Zola, Gide.

FRANCAIS C442
Introduction au XXème siècle (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Les facteurs historiques, économiques, et socio-politiques qui caractérisent la IIIème République aux environs de 1900; les mouvements qui agitent la société française et leurs répercussions dans la vie culturelle, particulièrement littéraire, de la "Belle Epoque". On étudie un certain nombre d'essais (Maurras, Bergson, Péguy ...) qui distinguent l'héritage du siècle précédent des tendances nouvelles qui marqueront la littérature du XXème siècle.

FRANCAIS C444
Le roman et la poésie de 1900 à 1920 (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Distinction entre la littérature en vogue et celle qui prépare le renouveau littéraire de l'entre-deux guerres par l'étude des oeuvres de certains représentants de ces deux courants choisis parmi les suivants: France, Barrès, Bourget, Gide, Valéry, Proust, Apollinaire, et Tzara.

FRANCAIS C445
Le roman et la poésie de l'entre-deux guerres (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. La guerre 14-18 et ses conséquences. Littérature des "années folles"; l'internationalisme pacifiste et l'inquiétude spirituelle. Analyse de l'explosion surréaliste. Les auteurs seront choisis parmi les suivants: Radiguet, Rolland, Jules Romains, Martin du Gard, Mauriac, Bernanos, Green, Giono, Colette, Breton, Eluard.

FRANCAIS C446
Le roman et la poésie du XXème siècle I (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Littérature désabusée, littérature engagée. Problèmes de l'homme et de la société moderne. Le roman de la grandeur et de la condition humaines. Les écrivains de la Résistance. Les auteurs étudiés seront choisis

parmi les suivants: Saint-Exupéry, Malraux, Montherlant, Céline, Giraudoux, Emmanuel, Jouve, Char.

FRANCAIS C447
Le roman et la poésie du XXème siècle II (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Le domaine contemporain. Répercussion de la seconde guerre mondiale sur la vie sociale et culturelle. Littérature de l'absurde et du néant; pessimisme viril; tendances littéraires récentes: le nouveau roman, le surréalisme en question, la nouvelle poésie. Les auteurs étudiés seront choisis parmi les suivants: Camus, Sartre, Beauvoir, Robbe-Grillet, Queneau, Butor, Prévert, Michaux, Tournier.

FRANCAIS C450
Symboles et archétypes de l'imaginaire québécois en littérature (3 crédits)
Préalable: FRAN C251. Identification, description, évolution des grands symboles et archétypes de l'imaginaire québécois en littérature. Examen des modes de production et de transmission. Textes puisés aussi bien dans la littérature "officielle" que dans la littérature "populaire".

FRANCAIS C451
La littérature québécoise au féminin (3 crédits)
Préalable: FRAN C251. Etude des principales écrivaines québécoises. Saisie du réel et modes d'expression. Evolution de la conscience féminine. Les féminismes.

FRANCAIS C452
Les écrivains québécois et la question nationale (3 crédits)
Préalable: FRAN C251. L'interrogation québécoise et son rapport avec la création littéraire. Situation des écrivains par rapport à la question nationale. Littérature engagée, littérature de propagande. On examinera dans ce cours aussi bien des textes "théoriques" des écrivains que des textes de "création".

FRANCAIS C453
Le fantastique et la tradition populaire dans la littérature québécoise (3 crédits)
Préalable: FRAN C251. La présence du fantastique dans la littérature québécoise et l'influence de la tradition populaire au niveau des thèmes et des structures. Textes choisis parmi l'ensemble de la production littéraire.

FRANCAIS C454
Littérature et para-littérature québécoises (3 crédits)
Préalable: FRAN C251. Ressemblances et différences entre l'une et l'autre littérature. Conditions de production et de diffusion. Univers représenté. Structures des oeuvres et idéologie. Textes choisis dans l'ensemble de la littérature québécoise. Guide: *Manuel de la petite littérature du Québec* de V.-L. Beaulieu.

FRANCAIS C455
Littérature québécoise - Canadian Literature I (3 crédits)
Préalable: FRAN C251, ou autorisation du département. Etude comparée des littératures québécoise et canadienne anglaise. Comparaisons des deux littératures sur le plan thématique, stylistique, structural, idéologique, etc. Examen des similitudes, des analogies, et des traits distinctifs. L'accent dans ce cours est mis sur les oeuvres traditionnelles. Textes tels que: Grove, *Settlers of the Marsh*, et Ringuet, *Trente Arpents;* MacLennan, *The Watch that Ends the Night*, et Langevin, *Poussière sur la ville*, etc.

FRANCAIS C456
Littérature québécoise - Canadian Literature II (3 crédits)
Préalable: FRAN C251, ou autorisation du département. Etude comparée des littératures québécoise et canadienne anglaise. Continuation du cours précédent. On mettra l'accent sur l'évolution des deux littératures depuis 1960. (Le nouveau roman québécois, etc.) Analyses thématique, idéologique, et stylistique. Ressemblances et dissemblances. Textes choisis dans les oeuvres d'Anne Hébert, de Robertson Davies, de Marie-Claire Blais, de Margaret Atwood, etc.

FRANCAIS C457
Littérature québécoise I (3 crédits)
Préalable: FRAN C251. Selon les besoins et désirs des étudiants, l'intérêt du professeur, et le progrès de la recherche, on traitera ici de sujets spécifiques qui ne sont pas couverts par les autres cours. Par exemple: un mouvement littéraire; une période littéraire courte; un auteur particulier; un thème; la critique; étude comparative de la littérature québécoise et des littératures d'expression française, etc.

FRANCAIS C458
Littérature québécoise II (3 crédits)
Préalable: FRAN C251. Les étudiants ayant suivi FRAN C457 obtiendront 3 crédits pour FRAN C458 à condition que le contenu du cours ne soit pas le même.

FRANCAIS C459
Etude d'un sujet particulier en littérature québécoise (3 crédits)
Préalable: FRAN C251. Ce cours a pour but d'élargir la perspective des études littéraires québécoises en proposant l'examen d'expressions artistiques et culturelles qui n'appartiennent pas spécifiquement au domaine littéraire, mais entretiennent avec lui des rapports privilégiés du fait que le "texte" y possède une fonction précise. Par exemple: la chanson; le cinéma; le monologue; le radioroman, et le téléroman, etc.

FRANCAIS C460
Initiation à la terminologie (3 crédits)
Préalable: FRAN C261. Ce cours identifie certains problèmes de terminologie soulevés par la traduction et comprend des travaux pratiques tels que l'analyse lexicographique d'articles de journaux ou de revues en français ou en anglais, et la préparation de glossaires sur fiches.

FRANCAIS C461
Terminologie pratique (3 crédits)
Préalable: FRAN C460. Ce cours fait suite à l'initiation à la terminologie. Rédaction de dossiers terminologiques, études néologiques; étude des définitions, notes, et contextes; analyse sémique.

FRANCAIS C462
Histoire de la traduction (3 crédits)
Préalable: FRAN C261, ou autorisation du Département. Etude de textes et de traductions d'auteurs anglais et français. On étu-

diera l'évolution des styles et des attitudes à partir de la Renaissance jusqu'à l'époque moderne.

FRANCAIS C463
Revision et correction en traduction (3 crédits)
Préalable: FRAN C360 ou C361. Ce cours a pour objet de faire connaître aux étudiants les aspects humains et techniques de la révision. Il abordera surtout les différentes méthodes utilisées pour évaluer la qualité d'une traduction.

FRANCAIS C464
Stage de formation: du français à l'anglais (6 crédits)
Préalable: 3ème année dans le programme de traduction. Le stage a pour but d'initier l'étudiant à l'activité professionnelle dans le domaine de la traduction du français à l'anglais et de lui faire connaître le monde du travail.

FRANCAIS C465
Stage de formation: de l'anglais au français (6 crédits)
Préalable: 3ème année dans le programme de traduction. Le stage a pour but d'initier l'étudiant à l'activité professionelle dans le domaine de la traduction de l'anglais au français et de lui faire connaître le monde du travail.

FRANCAIS C466
La langue française au Québec: son évolution (3 crédits)
Préalable: FRAN C251 et autorisation du département. Aperçu de l'évolution du français sur le territoire québécois; influences internes et externes. Etude des rapports entre l'évolution politique et économique du Québec et celle de la langue par la consultation de documents provenant d'époques successives.

FRANCAIS C467
La langue française au Québec: son état actuel (3 crédits)
Préalable: FRAN C262 ou l'équivalent. Analyse des aspects phonétiques, lexicaux, et morphosyntaxiques du français québécois actuel et des divergences de ce dernier par rapport à la norme européenne: archaïsmes, anglicismes, créations nouvelles. La question des niveaux de langue (aspects sociaux et linguistiques) et celle de la norme seront également abordées.

FRANCAIS C468
Etude de la norme (3 crédits)
Préalable: FRAN C262 ou l'équivalent. Etude des facteurs politiques, sociologiques, et psychologiques contribuant à la notion de la norme. Analyse et description des écarts par rapport à la norme. Travaux pratiques d'enquête.

FRANCAIS C469
Sémantique (3 crédits)
Préalable: FRAN C262. Etude formelle de la signification et de la segmentation du sens en français fondée sur une approche sémiotique de la langue. L'étudiant fera l'apprentissage de méthodes d'analyse lui permettant d'inventorier les effets de sens et de les ordonner en fonction de critères objectifs.

FRANCAIS C470
Traduction littéraire avancée: du français à l'anglais (3 crédits)
Préalable: FRAN C360 ou autorisation du département. Etude des différents principes et des différentes techniques de la traduction littéraire; aperçu de la traduction littéraire au Canada. Travaux pratiques: analyse critique et comparaison d'une traduction et de son original; traduction de textes français choisis par le professeur.

FRANCAIS C471
Traduction littéraire avancée: de l'anglais au français (3 crédits)
Préalable: FRAN C360 ou autorisation du département. Etude des différents principes et des différentes techniques de la traduction littéraire; aperçu de la traduction littéraire au Canada. Travaux pratiques: analyse critique et comparaison d'une traduction et de son original; traduction de textes anglais choisis par le professeur.

FRANCAIS C472
Le théâtre français du XXème siècle I (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. A la fin du XIXème siècle, le théâtre français connut des transformations profondes. Ce cours suivra l'évolution du théâtre à partir d'Antoine, à travers ses étapes successives, jusqu'à la fin de la période de l'entre-deux-guerres. Seront étudiés les grands metteurs en scène qui ont succédé à Antoine: Lugné-Poe, Copeau et le Cartel, ainsi que les mouvements d'idées et les dramaturges qui ont marqué cette période.

FRANCAIS C473
Le théâtre français du XXème siècle II (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. La guerre de 1939-1945 marque une coupure dans l'histoire du théâtre en France au XXème siècle. La relève du Cartel est assurée par des animateurs tels que Jean-Louis Barrault, Jean Vilar, Roger Planchon, etc. De nouvelles lignes de force se dégagent. Seront étudiés, entre autres, des représentants du théâtre politique, du théâtre de l'Absurde, et du théâtre nouveau qui se développe à la suite des événements de mai 1968.

FRANCAIS C474
Etude d'un sujet spécial dans le théâtre français (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302^3 et C303^3, C270^3 et C271^3, C324^6, C320^6 ou C321^3 et C322^3 ou autorisation du Département. Ce cours portera sur une période ou un problème particuliers dans l'histoire du théâtre français. Les sujets seront, par exemple: les origines du théâtre français dans le drame liturgique et son développement en tant que forme populaire jusqu'au théâtre baroque; le théâtre dit "classique" de sa naissance jusqu'à son déclin; le théâtre de la Révolution française; la *commedia dell'arte* en France; le théâtre bourgeois de Diderot aux comédies du boulevard.

FRANCAIS C475
Etude d'un sujet spécial dans le théâtre français (3 crédits)
L'étudiant s'inscrivant pour la seconde fois

au FRAN C474 (sur un sujet différent) obtient les crédits FRAN C475.

FRANCAIS C476
La littérature au féminin I (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. A partir de manifestes et d'oeuvres de création, on retracera différentes manifestations de la prise de conscience "féministe" chez les écrivaines françaises, ainsi que les solutions envisagées aux problèmes posés. Ce cours permettra de considérer les tendances actuelles dans une perspective historique.

FRANCAIS C477
La littérature au féminin II (3 crédits)
Préalable: 12 crédits parmi les suivants: FRAN C302[3] et C303[3], C270[3] et C271[3], C324[6], C320[6] ou C321[3] et C322[3] ou autorisation du Département. Ce cours portera sur l'éclatement qui caractérise l'écriture au féminin à l'heure actuelle. On étudiera différents concepts tels que la "prise de parole", la valorisation de *l'anima*, le renversement des mythes anciens, ainsi que la révolution formelle et stylistique qui accompagne cet éclatement.

FRANCAIS C478
Histoire de la critique littéraire (3 crédits)
Préalable: 6 crédits en littérature. Etude de l'évolution de la critique littéraire des origines au début du XXème siècle, au moyen d'un choix d'oeuvres théoriques et critiques.

FRANCAIS C480
Approches critiques I: la sémiotique textuelle (3 crédits)
Préalable: 6 crédits en littérature. Etude des conditions générales de la production du sens et de la spécificité du texte littéraire. Examen des principales théories formalistes en France et au Québec et apprentissage des méthodes critiques qui en découlent. Travaux pratiques qui permettront à l'étudiant d'en contrôler l'efficacité et la valeur au contact des oeuvres.

FRANCAIS C481
Approches critiques II: la sociologie de la littérature (3 crédits)
Préalable: 6 crédits en littérature. Etude des relations qu'entretiennent entre eux le littéraire et le social. Le point de vue résolument sociologique que l'on adoptera dans ce cours permettra d'étudier l'oeuvre en fonction du milieu qui en a permis l'émergence et du contexte socio-idéologique dont elle est à la fois un reflet et un élément actif.

FRANCAIS C482
Approches critiques III: la critique philosophique (3 crédits)
Préalable: 6 crédits en littérature. Ce cours vise à sensibiliser l'étudiant aux problèmes épistémologiques que pose l'étude d'un texte littéraire. La critique philosophique, essentiellement thématique, doit constamment remettre en question ses présupposés théoriques et tenter de justifier sa méthode. Quelles sont les conditions d'un discours véridique prenant en charge le texte littéraire, quelle est la signification du texte littéraire considéré comme signe global, telles sont les deux principales questions qui seront examinées.

FRANCAIS C483
Approches critiques IV: la psycho-critique (3 crédits)
Préalable: 6 crédits en littérature. Ce cours est une introduction à la psychanalyse de la littérature. Axé sur le créateur et sur ses rapports avec sa création, il permettra à l'étudiant de faire le point sur les différentes méthodes psychocritiques et sur leurs applications. Par des travaux pratiques d'interprétation portant sur des oeuvres particulières, on évaluera les avantages de chaque méthode et on en précisera les limites.

FRANCAIS C489
Méthodologie des travaux de recherche (6 crédits)
Préalable: FRAN C324, C367 ou C401. Destiné aux étudiants de dernière année et préparant aux études graduées, ce cours permettra, par des exercices de rédaction commentés et critiqués, d'atteindre la précision, l'élégance, et l'originalité dans l'expression écrite. Analyse stylistique proprement dite (définitions et procédés de style). Théorie et pratique de l'analyse de texte - Théorie de la versification - Théorie et pratique des recherches bibliographiques.

FRANCAIS C490
Etude avancée d'un sujet particulier (6 crédits)
Préalable: 12 crédits de langue ou de linguistique au niveau "400". Etude d'un sujet particulier dans le domaine de la langue ou de la linguistique.
NOTE: Tout étudiant s'inscrivant pour la seconde fois au cours FRAN C490 obtient les crédits FRAN C491 et C492.

FRANCAIS C491
Etude avancée d'un sujet particulier (3 crédits)
Préalable: 12 crédits de langue ou de linguistique au niveau "400". Etude d'un sujet particulier dans le domaine de la langue ou de la linguistique.

FRANCAIS C492
Etude avancée d'un sujet particulier (3 crédits)
Préalable: 12 crédits de langue ou de linguistique au niveau "400". Etude d'un sujet particulier dans le domaine de la langue ou de la linguistique.
NOTE: Tout étudiant s'inscrivant pour la seconde fois au cours FRAN C491 obtient les crédits FRAN C492.

FRANCAIS C493
Etude avancée d'un sujet particulier (6 crédits)
Préalable: 12 crédits en littérature dont 6 au niveau "400". Etude d'un sujet particulier dans le domaine de la littérature.
NOTE: Tout étudiant s'inscrivant pour la seconde fois au cours FRAN C493 obtient les crédits FRAN C494 et C495.

FRANCAIS C494
Etude avancée d'un sujet particulier (3 crédits)
Préalable: 12 crédits en littérature dont 6 au niveau "400". Etude d'un sujet particulier dans le domaine de la littérature.

FRANCAIS C495
Etude avancée d'un sujet particulier (3 crédits)
Préalable: 12 crédits en littérature dont 6 au

niveau "400". Etude d'un sujet particulier dans le domaine de la littérature.

NOTE: Tout étudiant s'inscrivant pour la seconde fois au cours FRAN C494 obtient les crédits FRAN C495.

FRANCAIS C498
Etude avancée d'un sujet particulier
(6 crédits)

Préalable: 12 crédits dans la spécialité dont 6 au niveau "400". Ce cours n'est ouvert qu'aux étudiants des programmes de majeure, de spécialisation, ou d'honneurs. Il offre l'occasion d'approfondir l'étude d'un sujet à déterminer par l'étudiant en accord avec son conseiller et/ou un professeur du département. Chaque étudiant exécute des travaux individuels sous le contrôle du professeur spécialiste de la matière.

FRANCAIS C499
Etude avancée d'un sujet particulier
(6 crédits)

Tout étudiant s'inscrivant pour la seconde fois au cours FRAN C498 obtient les crédits FRAN C499.

31.120 Exercise Science

Chairman
W.R. SELLERS, *Associate Professor*

Associate Professors
E.F. ENOS
L.W. JANKOWSKI
M.L. SQUIRES
R.B. SWEDBURG

Associate Professor of Exercise Science and Sociology
B.M. PETRIE

Assistant Professors
D.C. LIN
B.R. MacINTOSH
S.J. SULLIVAN

Adjunct Assistant Professors
L.P. COUGHLIN
I. ROHAN
J.I. SCHULTZ
J.D. SULLIVAN

PROGRAMMES

Programmes and courses formerly offered under the title of Bio-Physical Education will now be offered as Exercise Science. All courses previously entitled Bio-Physical Education (BIOP) will in future be entitled Exercise Science (EXCI).

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

66-67 Specialization in Exercise Science
Required Courses for all options (39 credits)
Year I
6 CHEM C221^3, C222^3
3 BIOL C230^3
9 EXCI C201^3, C253^3, C255^3
Year II
12 EXCI C311^3, C317^3, C353^3, C357^3
Year III
9 EXCI C451^3, C453^6

A. Sports Science Option
(27 credits)
Year I
3 BIOL C380^3 or C203^3
3 MATH C207^3
3 EXCI C261^3
Year II
3 PHYS C241^3
6 EXCI C335^3, C337^3
Year III
9 EXCI C436^3, C463^6

B. Therapeutic Activity Option
(27 credits)
Year I
3 MATH C207^3
Year II
9 EXCI C310^6, C316^3
Year III
15 EXCI C401^3, C402^3, C455^3 or C413^3, C460^6

C. Pre-Research Option
(27 credits)
Year I
6 MATH C241^6
3 COMP C211^3
Year II
6 MATH C344^6
Year III
12 EXCI C411^3, C468^6, C493^3

D. Bio-Chemistry Option
(28 credits)
Year I
4 CHEM C231^2, C232^2
3 MATH C207^3
Year II
6 CHEM C372^3, C373^3
Year III
6 Chosen from CHEM C470^3, C471^3, C472^3, C473^3, C474^3, C475^3, C476^3
9 EXCI C411^3, C468^6

42 Major in Exercise Science
Year I
6 CHEM C221^3, C222^3
3 BIOL C230^3
3 MATH C207^3
9 EXCI C201^3, C253^3, C255^3
Year II
12 EXCI C311^3, C317^3, C353^3, C357^3
Year III
9 EXCI C451^3, C453^6

***24 Minor in Athletic Training**
Year I
3 BIOL C230^3
6 Chosen from BIOL C203^3, EXCI C251^3, PHYS C241^3
Year II
9 EXCI C253^3, C335^3, C337^3
Year III
6 EXCI C433^3, C436^3

**NOTE: Students registered in Specialization or Major programmes in Exercise Science may not take this minor, but should see Specialization in Exercise Science: Sports Science Option.*

***30 Certificate in Outdoor Education**
3 BIOL C208^3
18 EXCI C370^6, C470^6, C472^6
9 Elective credits chosen from: BIOL C209^3, C250^3; EXCI C337^3; GEOL C202^3; HEAL C208^6; PHYS C270^3; SCHA C254^3, C255^6

**NOTE: Acceptance into certificate programme is dependent upon possession of, Bachelor's degree by applicant or graduation from the three-year CEGEP programme no. 391 (Recreation).*

Students may transfer into the Certificate programme up to six credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Recreation and Leisure Studies

The courses listed below, and fully described in §31.260, are open to all students, in particular Exercise Science students desiring increased competency in the field of Recreation and Leisure Studies.

LEIS C241[3], C342[6], C426[6], C464[6]

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

EXERCISE SCIENCE C201
Introduction to Exercise Science (3 credits)

The course examines from an historical perspective the philosophical and applied concepts of Exercise Science. There is particular emphasis on the development of the relationship between Exercise Science and the allied health professions. Lectures.

NOTE: Students who have received credit for BIOP C201 may not take this course for credits.

EXERCISE SCIENCE C215
Psychomotor Learning and Eurhythmics in Early Childhood Curriculum (3 credits)

The course examines the psychomotor domain of learning in young children. Application of perceptual motor processes to motor learning in the early childhood curriculum are analyzed. Special consideration is given to the use of rhythmic activities as a learning mode. Lectures, laboratories.

NOTE: Students who have received credit for BIOP C413 and C415 (1979-80, 1980-81); EXCI C315 and C415 (1981-82) or EXCI C316 and C413 (1982-83) may not take this course for credits.

EXERCISE SCIENCE C251
Basics of the Science of Movement
(3 credits)

Anatomical, physiological and kinesiological aspects of movement are presented. Acute and chronic responses to exercise and the development of fitness programmes are studied. Detrimental as well as beneficial responses are considered. Lectures and laboratories.

NOTE: Students registered in the Major and Specialization programmes in Exercise Science may not take this course for credits.

EXERCISE SCIENCE C253
Structural Human Anatomy (3 credits)

The skeletal and muscular systems of the body are studied in depth to give a basis for subsequent study in core courses in Exercise Science. Lectures, laboratories.

NOTE: Students who have received credit for BIOP C351 or EXCI C351 may not take this course for credits.

EXERCISE SCIENCE C255
Systemic Human Anatomy (3 credits)

The major areas of emphasis in this course are the cardiovascular, lymphatic, nervous and respiratory systems. The other systems are also given brief discussion. This course provides the foundation for subsequent study in Exercise Science. Lectures, laboratories.

NOTE: Students who have received credit for BIOP C355 or EXCI C355 may not take this course for credits.

EXERCISE SCIENCE C261
Principles of Physical Conditioning
(3 credits)

The major thrust of this course is a practical experience in adult physical activities, e.g., industrial fitness. This includes a conditioning as well as a skill development component. Lectures and special projects relate the physical activities to theoretical concepts. Lectures and laboratories.

NOTE: Students who have received credit for BIOP C261 may not take this course for credits.

This course was first offered in the present form in the 1981-82 academic year.

EXERCISE SCIENCE C310
Play, Sport, and Recreation Skills for Children (6 credits)

Interests, characteristics and physical activity needs of children are examined. Basic skills, progressions and appropriate teaching/learning strategies are reviewed. Lectures, laboratories.

NOTE: Students who have received credit for BIOP C310 may not take this course for credits.

EXERCISE SCIENCE C311
Introduction to Psychomotor Behaviour
(3 credits)

Prerequisite: MATH C207. This course will examine the acquisition and performance of skilled motor behaviour. An information processing model will be used to identify the major mechanisms involved in the production of skilled movement. Lectures, laboratories.

NOTE: Students who have received credit for BIOP C211 or EXCI C211 may not take this course for credits.

EXERCISE SCIENCE C316
Eurythmics in the Early Childhood Curriculum (3 credits)

The course examines the use of rhythmic activities as a learning mode in the early childhood curriculum. Topics include the development of kinesthetic awareness and the role of coordination and timing in the performance of complex movement patterns. Practical application of theory involves interaction with young children. Lectures: 2 hours per week. Laboratory: 2 hours per week.

NOTE: Students who have received credit for BIOP C415 or EXCI C415 may not take this course for credits.

EXERCISE SCIENCE C317
Neural Control of Human Movement
(3 credits)

Prerequisite: EXCI C253, C311 and C353. This course examines the major neural mechanisms involved in the control of posture and movement. Lectures and laboratories.

NOTE: Students who have received credit for BIOP C313 may not take this course for credits.

EXERCISE SCIENCE C331
Health Science (3 credits)

The subject matter is approached with "health" viewed as the optimal functioning of the human organism. The course synthesizes and applies knowledge from biological, epidemiological, and medical sciences to furnish a comprehensive understanding of factors which influence health such as: human sexuality, nutrition, fitness and disease processes. Lectures.

NOTE: Students who have received credit

for BIOP C331 may not take this course for credits.

EXERCISE SCIENCE C333
Personal and Community Health Problems (3 credits)

The course examines causes and symptoms and proposes solutions to individual and community health problems. Problems considered include: alcoholism, drug abuse, sex education and industrial and occupational health hazards. Lectures, seminars.

NOTE: Students who have received credit for BIOP C333 may not take this course for credits.

EXERCISE SCIENCE C335
Prevention of Athletic Injuries (3 credits)

Prerequisite: EXCI C337 and EXCI C253. This course examines the biomechanics of acute activity-related injuries and the pathology of chronic conditions associated with physical activity. Preventive methods which can be used to reduce the risk of injury are presented. These include: physical conditioning, skill development, prophylactic taping and protective apparel. Lectures.

NOTE: Students who have received credit for BIOP C335 may not take this course for credits.

EXERCISE SCIENCE C337
Emergency Care of Athletic Injuries (3 credits)

Prerequisite: EXCI C255. This course identifies common injuries and chronic pathological conditions associated with physical activity. Students learn to recognize the injury or condition and perform emergency or initial treatment. The "how" and "why" of emergency treatment is covered. Lectures, laboratories.

NOTE: Students who have received credit for BIOP C337 may not take this course for credits.

EXERCISE SCIENCE C353
Human Physiology (3 credits)

Prerequisite: CHEM C222 and EXCI C255. This course introduces the student to the functional organization of the human body. Cell physiology, metabolism, thermoregulation, endocrine function, reproduction, neural and muscular physiology are presented. Lectures and laboratories.

NOTE: Students who have received credit for BIOP C353 may not take this course for credits.

EXERCISE SCIENCE C357
Cardiovascular-Respiratory Physiology (3 credits)

Prerequisite: EXCI C353. This course introduces the student to those mechanisms and systems which are of primary importance in the metabolic processes of exercise. The function of renal, cardiac, circulatory and respiratory physiology are detailed. Lectures, laboratories.

NOTE: Students who have received credit for BIOP C357 may not take this course for credits.

EXERCISE SCIENCE C370
Outdoor Recreation and Leadership (6 credits)

This course focuses on using and understanding the environment as a setting for recreation. Learning by experience is emphasized. Potential leaders and administrators in outdoor recreation or outdoor education will find this course of value. Lectures, laboratories: weekend field trips to be arranged.

NOTE: Students who have received credit for BIOP C370 and EXCI C370 (81-82) may not take this course for credits.

EXERCISE SCIENCE C393
Selected Topics in Exercise Science (3 credits)

Prerequisite: Permission of the Department. This course focuses on current topics of interest in the field of Exercise Science. The content will depend upon the theme designated by the Department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers.

NOTE: Students who have received credit for BIOP C393 may not take this course for credits.

EXERCISE SCIENCE C395
Selected Topics in Exercise Science (3 credits)

Prerequisite: Permission of the Department. Students who have received credit for EXCI C393 may register for EXCI C395 provided the subject matter is different. This course focuses on current topics of interest in the field of Exercise Science. The content will depend upon the theme designated by the Department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers.

NOTE: Students who have received credit for BIOP C395 may not take this course for credits.

EXERCISE SCIENCE C397
Selected Topics in Exercise Science (3 credits)

Prerequisite: Permission of the Department. This course focuses on current topics of interest in the field of Exercise Science. The content will depend upon the theme designated by the Department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers.

NOTE: Students who have received credit for BIOP C397 may not take this course for credits.

EXERCISE SCIENCE C399
Selected Topics in Exercise Science (3 credits)

Prerequisite: Permission of the Department. Students who have received credit for EXCI C397 may register for EXCI C399 provided the subject matter is different. This course focuses on current topics of interest in the field of Exercise Science. The content will depend upon the theme designated by the Department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers.

NOTE: Students who have received credit for BIOP C399 may not take this course for credits.

EXERCISE SCIENCE C401
Adapted and Therapeutic Exercise Physiology (3 credits)

Prerequisite: EXCI C357. The course introduces the student to the application of exercise as it relates to physiopathology and rehabilitation. Specific metabolic, cardiovascular, respiratory and neuro-muscular

conditions which may be prevented or treated by appropriate exercise therapy are emphasized. Lectures.

NOTE: Students who have received credit for BIOP C401 may not take this course for credits.

EXERCISE SCIENCE C402
Therapeutic Role of Movement (3 credits)

Prerequisite: EXCI C401 or permission of the Department. The uses of developmental games, gymnastics and dance for special populations are examined. The role of movement in enriching the quality of life and health is emphasized. Mainstreaming and the rights of the handicapped are discussed. Lectures and laboratories.

NOTE: Students who have received credit for BIOP C402 may not take this course for credits.

EXERCISE SCIENCE C411
Research Design (3 credits)

Prerequisite: MATH C207 or the equivalent, EXCI C357, recommended to be concurrent with EXCI C453 and C468. Through lectures and laboratory experience, students will be exposed to various research designs including: descriptive survey, historical survey, experimental and analytical design. Presentation and interpretation of data as well as guidelines for writing a research paper will be covered. Lectures, seminars and laboratories.

NOTE: Students who have received credit for BIOP C411 may not take this course for credits.

EXERCISE SCIENCE C412
Advanced Methods and Materials in Physical Education and Recreation (6 credits)

Prerequisite: Third-year standing and consent of instructor. The interactive behaviour between student and teacher is approached scientifically. Among topics considered are history and philosophy of physical education, modern trends in education and their adaptation to the physical education field, Mosston's spectrum of styles, T.E.T. (Teacher Effectiveness Training), learning performance criteria, pupil's perception of teacher influence, behavioural objectives, values clarification, leadership theory, curriculum and daily lesson planning. In the laboratory periods, students are given the opportunity to practise various methodological techniques on peers and on adolescents and young adults in academic or recreational settings.

NOTE: Students who have received credit for BIOP C412 may not take this course for credits.

EXERCISE SCIENCE C417
Electromyographic Kinesiology (3 credits)

Prerequisite: EXCI C317. This course examines fundamental concepts of electromyography and the use of electromyographical techniques to investigate selected aspects of normal and pathological movement. Lectures and laboratories.

EXERCISE SCIENCE C421
Administration of Physical Education Programmes (3 credits)

The course examines fundamental concepts of sports administration and management. Organizational structures of intramural and interscholastic programmes are examined. Budget, facilities management, legal responsibilities and public relations are covered. These are applied to both the public and the private sector. Lectures and seminars.

NOTE: Students who have received credit for BIOP C421 may not take this course for credits.

EXERCISE SCIENCE C433
Rehabilitation and Treatment of Athletic Injuries (3 credits)

Prerequisite: EXCI C337 or consent of professional staff. The role and relationship of the sports therapist to the physician, nurse, and physiotherapist in the rehabilitation and treatment of athletic injuries are studied. Subject to review are thermal and cryotherapy, and the use of diathermy, ultrasonic, whirlpool, defibrillator, and other equipment. Emergency treatment, methods of transportation, and legal aspects are discussed. An introduction is also provided to basic counselling techniques. Lectures: 3 hours per week. Laboratory: 3 hours per week.

EXERCISE SCIENCE C436
Sports Medicine (3 credits)

Prerequisite: EXCI C357. Selected topics from the current literature dealing with health oriented aspects of involvement in sport will be examined. Lectures and seminars.

NOTE: Students who have received credit for BIOP C436 may not take this course for credits.

EXERCISE SCIENCE C451
Kinesiology (3 credits)

Prerequisite: EXCI C253, C317; also recommended is PHYS C241. This course concentrates on the mechanical principles pertinent to an understanding of human movement performance. Fundamental principles of mechanics involved in the kinematics and kinetic analysis of basic human movement and their applications are covered. Lectures and laboratories.

NOTE: Students who have received credit for BIOP C451 may not take this course for credits.

EXERCISE SCIENCE C453
Physiology of Exercise (6 credits)

Prerequisite: EXCI C357 and C317. The physiology of man's acute and chronic adaption to physical activity is examined. Factors affecting muscle strength, cardiorespiratory endurance and other components of fitness are studied. Criteria for exercise prescription and the effects of training are also presented. Laboratory techniques for the assessment of performance are emphasized. Lectures and laboratories.

NOTE: Students who have received credit for BIOP C453 may not take this course for credits.

EXERCISE SCIENCE C455
Preventive Medicine and Geriatrics (3 credits)

Prerequisite: EXCI C357 or permission of the Department. This course examines the role of physical activity as it relates to the physiological, psychological and sociological needs which accompany the aging process. Activities are explored in view of their preventive, rehabilitative and/or adaptive benefit to the aged population. Lectures and laboratories.

NOTE: Students who have received credit for BIOP C455 may not take this course for credits.

EXERCISE SCIENCE C460
Fitness and Sports Science Internship
(6 credits)

Prerequisite: This course is open to students with advanced standing enrolled in the Sports Science Option. This course offers a supervised period of work in designing and directing fitness, rehabilitation and athletic therapy programmes. The course involves a commitment of 240 hours including a weekly seminar.

NOTE: Students who have received credit for BIOP C462 may not take this course for credits.

EXERCISE SCIENCE C463
Therapeutic Activity Internship (6 credits)

Prerequisite: This course is open to students with advanced standing in Exercise Science enrolled in the Therapeutic Activity Option. The course offers a supervised period of work as activity leader or exercise technician in a hospital or rehabilitation centre or similar institution, a technician assisting in physiological evaluation or a related position. The course involves a commitment of 240 hours including a weekly seminar.

NOTE: Students who have received credit for BIOP C466 may not take this course for credits.

EXERCISE SCIENCE C468
Research Internship (6 credits)

Prerequisite: This course is open to students with advanced standing in Exercise Science enrolled in the Bio-Chemistry or Research Option. In consultation with a faculty supervisor, students are given the opportunity to study theoretical, practical and scientific problems in the field of Exercise Science. Students will participate in experiments under close supervision of a faculty adviser. At the conclusion of these experiments the student will prepare a report and make a verbal presentation of the findings. The course involves a commitment of 240 hours including a weekly seminar.

NOTE: Students who have received credit for BIOP C468 may not take this course for credits.

EXERCISE SCIENCE C470
Scientific Principles of Outdoor Education
(6 credits)

The course offers a comprehensive analysis of outdoor education. The aims and objectives of outdoor education are examined; organization and administration of model programmes are analyzed; innovative units of instruction and outdoor education programmes are evaluated. Students will plan, teach and participate in outdoor learning experiences. Lectures, laboratories, seminars and field study.

NOTE: Students who have received credit for BIOP C470 may not take this course for credits.

EXERCISE SCIENCE C472
Outdoor Education - Administration and Implementation (6 credits)

The course explores use of the out-of-doors to enrich the school curriculum. In addition, outdoor education as a strategy in the wider context of education is examined. Students will receive instruction in skills necessary for planning, administering and implementing outdoor education programmes. The philosophical base for this educational approach will be assessed, particularly as it pertains to interdisciplinary methods in the elementary and high school curricula. Field study and laboratories will supplement classroom instruction. 3-4 week intensive summer course. Alternate summers.

NOTE: Students who have received credit for BIOP C472 may not take this course for credits.

EXERCISE SCIENCE C491
Independent Study in Exercise Science
(6 credits)

Prerequisite: Permission of the Department. Students will work on topic(s) chosen in consultation with their department supervisor. The study can include readings, field studies, interviews, and field work. An in-depth report of the activities conducted by the student will be presented to the supervisor upon completion of the course.

NOTE: Students who have received credit for BIOP C491 may not take this course for credits.

EXERCISE SCIENCE C493
Advanced Topics in Exercise Science
(3 credits)

Prerequisite: Consent of professorial staff. This course focuses on advanced topics of interest in the field of Exercise Science. The content will be dependent upon the theme designated by the Department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers.

NOTE: Students who have received credit for BIOP C493 may not take this course for credits.

EXERCISE SCIENCE C495
Advanced Topics in Exercise Science
(3 credits)

Prerequisite: Consent of professorial staff. Students who have received credit for EXCI C493 may register for EXCI C495 provided the subject matter is different.

NOTE: Students who have received credit for BIOP C495 may not take this course for credits.

EXERCISE SCIENCE C497
Advanced Topics in Exercise Science
(3 credits)

Prerequisite: Consent of professorial staff. This course focuses on advanced topics of interest in the field of Exercise Science. The content will be dependent upon the theme designated by the Department when the course is offered. The course will draw upon the expertise of individuals and visiting guest lecturers.

NOTE: Students who have received credit for BIOP C497 may not take this course for credits.

EXERCISE SCIENCE C499
Advanced Topics in Exercise Science
(3 credits)

Prerequisite: Consent of professorial staff. Students who have received credit for EXCI C497 may register for EXCI C499 provided the subject matter is different.

NOTE: Students who have received credit for BIOP C499 may not take this course for credits.

31.130 Geography

Chairman
B. SLACK, *Associate Professor*

Professor
D. FRASER

Associate Professors
S.R. AIKEN
M. BARLOW
D.B. FROST
M. MARSDEN
A. MELAMED
J. YOUNG

Assistant Professors
J.M. ANDERSON
P. THORNTON

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Geography
Pattern A: Physical Geography
Year I
18 GEOG C211^{6}, C262^{6}, C271^{6}
Years II & III
12 GEOG C341^{6}, C361^{3}, C362^{3}
12 Chosen from GEOG C371^{6}, C372^{6}, C373^{6}
Year III
12 GEOG C369^{3}, C391^{3}, C491^{6}
6 Chosen from GEOG C470^{3}, C475^{3}, C476^{3}
Pattern B: Human Geography
Students may emphasize one of the following areas: Cultural-Historical or Economic-Urban.
Year I
18 GEOG C211^{6}, C262^{6}, C271^{6}
Year II
12 GEOG C341^{6}, C361^{3}, C362^{3}
12 *Cultural-Historical:* GEOG C312^{3}, C315^{3}, C317^{3}, C325^{3}
or
Economic-Urban: GEOG C331^{6}, C358^{3}, C359^{3}
Year III
12 GEOG C369^{3}, C391^{3}, C491^{6}
6 *Cultural-Historical:* GEOG C410^{3}, C420^{3}
or
Economic-Urban: GEOG C430^{3}, C434^{6}, C450^{3}

60 BA Specialization in Geography
Pattern A: Physical Geography
18 GEOG C211^{6}, C262^{6}, C271^{6}
Year II
12 GEOG C341^{6}, C361^{3}, C362^{3}
12 Chosen from GEOG C371^{6}, C372^{6}, C373^{6}
Year III
6 GEOG C369^{3}, C391^{3}
6 GEOG C470^{3}, C475^{3}, C476^{3}
6 Elective credits at the 300-400 level
Pattern B: Human Geography
Students may emphasize one of the following areas: Cultural-Historical or Economic-Urban
Year I
18 GEOG C211^{6}, C262^{6}, C271^{6}
Year II
12 GEOG C341^{6}, C361^{3}, C362^{3}
12 *Cultural-Historical:* GEOG C312^{3}, C315^{3}, C317^{3}, C325^{3}
or
Economic-Urban: GEOG C331^{6}, C358^{3}, C359^{3}
Year III
6 GEOG C369^{3}, C391^{3}
6 *Cultural-Historical:* GEOG C410^{3}, C420^{3}
or
Economic-Urban: GEOG C430^{3}, C434^{6}, C450^{3}
6 Elective credits at the 300-400 level

75 BSc Specialization in Resource Analysis and Land Use
Year I
26 GEOL C210^{3}, C211^{3}, C212^{3}, C213^{3}, C216^{3}, C221^{2}
GEOG C211^{6}, C266^{3}
Years II & III
13 GEOL C310^{2}, C311^{6}, C317^{2}, C415^{3}
12 Chosen from GEOL C223^{2} and Geology 300- and 400-level courses
18 GEOG C317^{3}, C357^{6}, C372^{6}, C475^{3}
6 from either POLI C361^{3}, C363^{3}
or
*ECON C391^{3}, C396^{3}
**Requires prerequisites of ECON C201^{3}, ECON C203^{3}*

42 BA Major in Geography
Year I
18 GEOG C211^{6}, C262^{6}, C271^{6}
Year II
12 GEOG C341^{6}, C361^{3}, C362^{3}
Year III
12 GEOG Elective credits at the 300-400 level

42 BA Major in Man-Environment Relationships
Year I
18 GEOG C211^{6}, C265^{3}, C266^{3}, C275^{3}, C276^{3}
Year II
6 GEOG C305^{6}
6 GEOG C371^{6}
Year III
6 GEOG C405^{6}
6 Chosen from GEOG C352^{3}, C353^{3}, C357^{6}

30 BA Minor in Geography
12 GEOG C211[6], C271[6]
6 GEOG C262[6]
12 GEOG Elective credits at the '300' or '400' level

66 BSc Specialization in Geography
18 GEOG C211[6], C262[6], C271[6]
12 Chosen from GEOG C371[6], C372[6], C373[6], C462[3], C463[3], C475[3], C476[3]
36 credits, all chosen from one of the following groups: Environmental Geography, Hydrology, Geoscience. Choices must be made in consultation with the departmental adviser.

ENVIRONMENTAL GEOGRAPHY
GEOG C362[3], C371[6], C372[6], C373[6]
BIOL C230[3], C240[3], C242[3], C246[3], C250[3], C342[3], C343[3], C348[6], C351[3], C353[3], C355[3], C450[3]
PHYS C243[3], C273[3]
CHEM C221[3], C222[3], C231[3], C232[3], C326[2]
GEOL C212[3]
MATH C210[3], C241[6], C271[3], C310[3], C371[3]

HYDROLOGY
GEOG C362[3], C371[6], C372[6], C475[3], C476[3]
BIOL C230[3], C240[3], C250[3], C342[3], C348[6], C450[3]
GEOL C210[3], C213[3], C215[3]
MATH C210[3], C241[6], C261[6], C271[3], C371[3]
PHYS C243[3], C244[3], C434[3]
CHEM C231[3], C232[3]

GEOSCIENCE
GEOG C362[3], C371[6], C372[6], C475[3], C476[3]
GEOL C210[3], C213[3], C215[3], C221[3], C315[3]
MATH C241[6], C261[6], C271[3], C371[3]
PHYS C243[3], C244[3], C434[3], C494[1]

42 BSc Major in Geography
12 GEOG C262[6], C271[6]
12 Chosen from GEOG C371[6], C372[6], C373[6], C462[3], C463[3], C475[3], C476[3]
18 credits, all chosen from one of the three groups listed under Specialization in Geography: *Environmental Geography, Hydrology, Geoscience.*

30 BSc Minor in Geography
12 GEOG C262[6], C271[6]
12 Chosen from GEOG C371[6], C372[6], C373[6], C462[3], C463[3], C475[3], C476[3]
6 Chosen from one of the three groups listed under Specialization in Geography: *Environmental Geography, Hydrology, Geoscience.*

NOTE:
Students in programmes leading to the B.Sc. degree may take the courses in Geography listed below for credits to be applied to their programme of concentration.

GEOGRAPHY C262
Introduction to Cartography (6 credits)

GEOGRAPHY C271
The Natural Environment (6 credits)

GEOGRAPHY C362
Quantitative Geography I (3 credits)

GEOGRAPHY C371
Biogeography (6 credits)

GEOGRAPHY C372
Analysis of the Environment (6 credits)

GEOGRAPHY C373
Climatology (6 credits)

GEOGRAPHY C462
Advanced Cartography (3 credits)

GEOGRAPHY C463
Topics in Applied Cartography (3 credits)

GEOGRAPHY C470
Topics in Physical Geography (3 credits)

GEOGRAPHY C475
Hydrology I (3 credits)

GEOGRAPHY C476
Hydrology II (3 credits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

GEOGRAPHY C200
Foundations of Geography: Environment and Man (6 credits)
A course designed for the student with no previous training who is interested in the geographic background to world and environmental problems. A study will be made of both physical and human factors in geography. Areas of concentration will be: energy, natural systems, and the environment; landscape evolution, climate, and resources; variation and spatial distribution of man's economic, social, and political activities; the relationship of urban and non-urban man to the environment. Lectures: 3 hours per week, including laboratory.

GEOGRAPHY C202
Ecology of Man (3 credits)
A general introduction to the relationship between physical and cultural distributions on the earth's surface. Global patterns of human, economic and natural resources will be examined.

GEOGRAPHY C211
Introduction to Human Geography (6 credits)
A study of the evolution of the earth's populated areas and the gradual enlargement of geographical horizons. The emphasis will be on cultural distributions, landscape and settlement, and the geography of economic, social, and political activities.

GEOGRAPHY C262
Introduction to Cartography (6 credits)
An introduction to the study of maps as a tool of the geographer. The course will focus

on the various stages involved in topographic map production and map interpretation, and the study of the cartographic methods available for presenting qualitative and quantitative statistical data on maps. Laboratory assignments of a practical nature complementary to the lectures form an important part of the course.

GEOGRAPHY C265
Maps and the Presentation of Statistical Data I (3 credits)

This course is useful to anyone interested in how to read and analyze the information on a map; or in how to display data by means of maps and diagrams. It is basic to all other courses in Geography. Topics include: analysis of topographic, land use, urban, and weather maps; the application of maps to economic, social, medical, and historical topics; the interpretation of aerial photographs. Laboratory: 3 hours per week.

NOTE: Students who have received credit for GEOG C262 may not take this course for credits.

GEOGRAPHY C266
Maps and the Presentation of Statistical Data II (3 credits)

The emphasis will be on thematic maps, and statistical diagrams and graphs. Elementary quantitative techniques will be studied along with their application to the analysis of geographic, economic, population, and other scientific data. Laboratory: 3 hours per week.

NOTE: Students who have received credit for GEOG C262 may not take this course for credits.

GEOGRAPHY C271
The Natural Environment (6 credits)

An introduction to the earth sciences as they relate to the environment of man, with special emphasis on weather, climate, and the evolution of landscape.

NOTE: Students who have received credit for either GEOG C275 or C276 may not take this course for credits.

GEOGRAPHY C273
The Sea (6 credits)

A physical, historical, and human geography of the world ocean. The course includes an introduction to oceanography, navigation, and elementary geophysics, as well as an account of travels and discovery ending with modern scientific exploration of the deeps. Topics include coasts and islands; ports, ships, and shipping; submarine topography; waves, tides, and earthquakes; marine life, fish, and fisheries.

GEOGRAPHY C275
Climate and the Biosphere (3 credits)

A study of the energy systems of the atmosphere and an introduction to environmental geography. The hydrologic cycle, world climates, and weather systems. Interrelationships in the biosphere and man's impact upon them. Weather and climate maps will also be studied. Lectures: 3 hours per week, including laboratory.

NOTE: Students who have received credit for GEOG C271 may not take this course for credits.

GEOGRAPHY C276
Landforms and the Biosphere (3 credits)

GEOG C275 a help. An introduction to the energy systems of the earth's crust and oceans, and the processes that have shaped our environment. The evolution of land forms and man's impact upon landscapes. The Pleistocene and Recent epochs in Canada, and their effects on soils and land use. The study of relevant topographic land-use maps and aerial photographs. Lectures: 3 hours per week, including laboratory.

NOTE: Students who have received credit for GEOG C271 may not take this course for credits.

GEOGRAPHY C305
Tutorial in Man-Environment Relationships I (6 credits)

Prerequisite: 18 credits in Geography. Tutorial discussion of the changing human attitudes to nature, perception of the environment, and of the impact of environmental factors on man and culture.

GEOGRAPHY C312
Political Geography (3 credits)

Prerequisite: GEOG C211 or permission of the Department. The course will be structured around traditional and contemporary themes in political geography. Emphasis will be on the political/administrative organization of space, the interrelationships between politics and environment, electoral geography, and the geographical aspects of public policy.

GEOGRAPHY C313
Montreal: Habitat and Society (6 credits)

Prerequisite: GEOG C211, or permission of the Department. The course is an introduction to the urban geography of Montreal, both past and present. Three themes are investigated. They are: (a) 'habitat': the biophysical environment of the site, the growth of the physical fabric of the city, and the evolution of its architectural forms; (b) 'Society and ways of life': the origins and growth of population, the ethnic and cultural heritage of the city, and the pattern of social areas within the metropolitan region; and (c) 'the contemporary urban scene': the personality of the city's landmarks, nodes, streetscapes, and districts. Fieldwork is an important part of the course.

GEOGRAPHY C315
Cultural Geography (3 credits)

Prerequisite: GEOG C211, or permission of the Department. Cultural Geography is concerned with the application of the concept of culture to geographic problems. Attention is focused on the spatial *patterning* of material and non-material elements of culture (culture areas); on the *processes* of cultural, temporal, and spatial change; on the *relationships* between man and land (cultural ecology); and especially on how these relationships are reflected in different *ensembles* of man and land (cultural landscapes).

NOTE: Students who have received credit for GEOG C316 may not take this course for credits.

GEOGRAPHY C317
Population Geography (3 credits)

Prerequisite: GEOG C200 or C211, or or permission of the Department. The characterisitics, dynamics, and distribution of world populations. Census data and techniques of census analysis. Rural/urban populations and their varying proportions. The vital processes of population change; natural increase and migration. Growth rates, population policies, and population pressure. Study of selected groups. The demographic prospects.

GEOGRAPHY C325
Introduction to Historical Geography
(3 credits)

Prerequisite: GEOG C211 or permission of the Department. This course aims to develop a geographical understanding of the past for its own sake and for its relevance to interpreting present geographical patterns of population, settlement and economic activity. The focus is on sources and techniques in historical geography. These are demonstrated through case studies of selected themes and problems.

GEOGRAPHY C331
Urban Geography (6 credits)

Prerequisite: GEOG C211 or URBS C280, or permission of the Department. A study of the prehistoric town, the Greek and Roman town, towns in the Middle Ages, the trading city, the pioneer town, and the modern metropolis. The distribution of such towns, their development, growth, and internal pattern of organization will be looked at from a historical and geographical point of view. Problems of conurbations and large metropolitan cities in the present age will be discussed and evaluated. Special emphasis will be given to Canadian cities, to their site, function, organization, growth, and development, as well as to urban problems relating to zoning, transportation, urban renewal, etc.

GEOGRAPHY C341
Regional Geography of Canada (6 credits)

Prerequisite: One of GEOG C200, C211, C271, C275, and C276, or permission of the Department. A study of Canada, past and present, based on the various natural regions into which the country is divided. In the first half of the course, a historic-geographical approach will be taken to bring to the student's attention the main trends in Canadian cultural and historical development from aboriginal times to the present. The changing nature of man-land relationships at different periods of time, and under different forms of occupance, will receive particular attention. In the second half of the course, the present-day pattern of human occupance on a regional and national basis will be analyzed.

GEOGRAPHY C345
The Geography of a Selected Region
(6 credits)

Prerequisite: One of GEOG C200, C211, C271, C275, and C276, or permission of the Department. A detailed examination of the physical environment, the people, their history, and the present political and economic patterns within the region. The course will provide a deep understanding of the interrelationships between the constituents of the region and an appreciation of those factors responsible for regional unity, and will also illustrate the holistic nature of the geographical discipline.

NOTE: In alternate years, beginning 1976-77, this course will focus on the Geography of the USSR.

GEOGRAPHY C346
The Geography of a Selected Region
(6 credits)

Prerequisite: Permission of the Department. A student who has received credit for GEOG C345 may register for GEOG C346 provided the subject matter is different.

GEOGRAPHY C352
Geography of Recreation (3 credits)

Prerequisite: GEOG C211, second-year standing in the Recreation and Leisure Studies Programme, or permission of the Department. The course examines the geographical aspects of recreation. The approaches followed are from the viewpoints of spatial patterns, landscape analysis and man-environment relations. The topics studied are within the framework of (i) recreation in the countryside and (ii) recreation in the city. Specific topics include national parks, recreation land capability analysis, landscape evaluation, and city parks.

GEOGRAPHY C353
Geography of Tourism (3 credits)

Prerequisite: GEOG C211, second-year standing in the Recreation and Leisure Studies Programme, or permission of the Department. The course examines the geographical aspects of tourism. Topics studied include: the analysis of tourist flow, the role of tourism in area development, the spatial aspects of selected elements of tourism (such as transportation and marketing), examination of selected areas as tourist destinations, and geographical analysis of resort cities.

GEOGRAPHY C357
Resource Utilization and Conservation
(6 credits)

Prerequisite: GEOG C200 or C211, or permission of the Department. The course will examine the resource concept and concepts of conservation, together with the regional approach to resource management. Case studies will include problems in developing particular natural resources.

GEOGRAPHY C358
Economic Geography I (3 credits)

Prerequisite: GEOG C211 or permission of the Department. This course will deal with the spatial organization of agricultural land use, industrial patterns and networks, with some attention given to tertiary activities and urban land use. The focus will be on the classical location theories - Von Thunen, Weber, Lösch and Christaller - and their application to behaviour in the real world, characterized by individual and corporate decision-making. Selected examples of real-world distribution will be considered.

GEOGRAPHY C359
Economic Geography II (3 credits)

Prerequisite: GEOG C211, C358, or permission of the Department. The aim is to integrate the various aspects of GEOG C358 by focusing on the question of regional systems and regional development. The course will examine various models of regional structure, such as, the heartland - periphery paradigm. Consideration will also be given to models of short - and long-term diffusion innovations and economic changes in the spatial economy.

GEOGRAPHY C361
Introduction to Geographical Research
(3 credits)

Prerequisite: Six credits in Geography, or permission of the Department. The course will introduce students to the methods and techniques used to acquire original geographical information in the field, laboratory, and archives. The course includes a week-end field camp.

GEOGRAPHY C362
Quantitative Geography I (3 credits)
Prerequisite: 12 credits in Geography, or permission of the Department. An introductory course in the applications of descriptive and analytical statistical techniques in Geography. Lectures and laboratory. *Note A/See §200.7*

GEOGRAPHY C369
Field Studies in Geography (3 credits)
Prerequisite: GEOG C361, or permission of the Department. A field course in which a selected area is intensively studied.

GEOGRAPHY C371
Biogeography (6 credits)
Prerequisite: GEOG C271, or permission of the Department. A study of the distribution of plants and animals, with emphasis on their soil and climatic inter-relations. Relevant field trips are included.

GEOGRAPHY C372
Analysis of the Environment (6 credits)
Prerequisite: GEOG C271, or permission of the Department. A review of modern theories and techniques in geomorphology, hydrology, pedology, denudation, chronology, and landscape classification. The course includes a discussion of the Pleistocene Epoch in terms of applied research methods.

GEOGRAPHY C373
Climatology (6 credits)
Prerequisite: GEOG C271, or permission of the Department. The broad aspects of world regional climates considered from the point of view of both physical and dynamic climatology. The course includes practical work.

GEOGRAPHY C391
History of Geographical Thought (3 credits)
Prerequisite: Eighteen credits in Geography. A study of the development of the field of geography from ancient times down to the present. Representative geographical works of the Greeks, the Romans, and of the Middle Ages, the Age of Discovery, the nineteenth and twentieth centuries will be examined and discussed. The present-day concepts of the field and function of geography will receive special attention.

GEOGRAPHY C405
Tutorial in Man-Environment Relationships II (6 credits)
Prerequisite: GEOG C305. Tutorial discussion of man's impact on the environment, emphasizing current problems and issues.

GEOGRAPHY C410
Topics in Cultural Geography (3 credits)
Prerequisite: GEOG C316 and one of GEOG C312, C317, C325, or permission of the Department. Subject matter will vary from year to year, depending on the interest of the Instructor. The course will provide opportunities to senior students for discussion and advanced study.

GEOGRAPHY C411
Topics in Cultural Geography (3 credits)
Students who have received credit for GEOG C410 register under GEOG C411 for credit, provided the subject matter is different.

GEOGRAPHY C420
Topics in Historical Geography (3 credits)
Prerequisite: GEOG C325 and one of GEOG C312, C316 and C317, or permission of the Department. Subject matter will vary from year to year depending on the interests of the Instructor. The course will provide opportunities to senior students for discussion and advanced study.

GEOGRAPHY C421
Topics in Historical Geography (3 credits)
Students who have received credit for GEOG C420 register under GEOG C421 for credit provided the subject matter is different.

GEOGRAPHY C430
Topics in Urban Geography (3 credits)
Prerequisite: GEOG C331 or permission of the Department. Subject matter will vary from year to year depending on the interests of the Instructor. The course will provide opportunities to senior students for discussion and advanced study.

GEOGRAPHY C431
Topics in Urban Geography (3 credits)
Students who have received credit for GEOG C430 register under GEOG C431 for credit provided the subject matter is different.

GEOGRAPHY C433
Applied Urban Geography (6 credits)
Prerequisite: GEOG C331, or permission of the Department. An applied course in urban design and land use planning. An overview of current theory and practice will be balanced, during the second term, by studio planning projects emphasizing a team approach.
NOTE: Students who have received credit for GEOG C401 or INTE C480 may not take this course for credit.

GEOGRAPHY C450
Topics in Economic Geography (3 credits)
Prerequisite: GEOG C358 and C359, or permission of the Department. Subject matter will vary from year to year, depending on the interests of the Instructor. The course will provide opportunities to senior students for discussion and advanced study.

GEOGRAPHY C452
Topics in Economic Geography (3 credits)
Students who have received credit for GEOG C450 register under GEOG C451 for credit provided the subject matter is different.

GEOGRAPHY C462
Advanced Cartography (3 credits)
Prerequisite: GEOG C262 and twelve additional credits in Geography. A study of the major stages and techniques involved in map compilation, design, and production. Lectures, practical periods with assignments, and relevant field trips.
NOTE: Students who obtained credits for GEOG N-466 in 1975-76 may not register for this course.

GEOGRAPHY C463
Topics in Applied Cartography (3 credits)
Prerequisite: GEOG C462. The subject matter of the course will vary from year to year to take advantage of the special interests of the course instructor, and may include such topics as automated cartography, remote sensing, historical cartography, or special-purpose mapping. Seminars, practical applications with assignments, and relevant

field trips. Students may register for this course a second time under GEOG C464.

GEOGRAPHY C464
Topics in Applied Cartography (3 credits)
Prerequisite: Permission of the Department. A student who has received credit for GEOG C463 may register for GEOG C464 provided the subject matter is different.

GEOGRAPHY C470
Topics in Physical Geography (3 credits)
Prerequisite: Twelve credits from GEOG C371, C372, C373, or permission of the Department. Subject matter will vary from year to year, depending on the interests of the Instructor. The course will provide opportunities to senior students for discussion and advanced study.

GEOGRAPHY C471
Topics in Physical Geography (3 credits)
Students who have received credit for GEOG C470 register under GEOG C471 for credit provided the subject matter is different.

GEOGRAPHY C475
Hydrology I (3 credits)
Prerequisite: GEOG C271, and one of GEOG C371, C372, or C373, or permission of the Department. Theories and practice of hydrology, with emphasis on geographical aspects and resource utilization. Includes introduction to glaciology.

GEOGRAPHY C476
Hydrology II (3 credits)
Prerequisite: GEOG C475. Soil moisture experiments, textural analysis, hydrological models, and field trips.

GEOGRAPHY C491
Honours Essay (6 credits)
Prerequisite: Final year standing in Honours Geography. The course will require the student to propose and conduct a research project and to produce a substantial report under the supervision of a faculty adviser.

31.140 Geology

Chairman
P.S. KUMARAPELI, *Associate Professor*

Professor
D.J. McDOUGALL

Associate Professors
H.S. deROMER
J.T. JENKINS
K.K. MUKHERJI
G.P. SASSANO

PROGRAMMES

In addition to programmes in geology, the Department, in cooperation with Physics, Chemistry, Geography and Biology Departments, offers four geology-based interdisciplinary programmes. The Geology-Physics and Geology-Chemistry programmes are designed for students who wish to pursue careers in Geophysics and Geochemistry respectively, through subsequent job training or graduate studies. The programme in Resource Analysis and Land Use is designed to develop the conceptual and technical facility to enable graduating students to make objective judgements regarding the resource potential and land use of a geographical region. The geology programme with ecology option is available only at the Major level and as such is aimed at the generalist interested in environmental problems.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

69 BSc Honours in Geology
Year I
17 GEOL C210^3, C211^3, C212^3, C213^3, C216^3, C221^2
3 COMP C211^3
3 Chosen from BIOL C222^3, GEOG C363^3
Year II
25 GEOL C310^2, C311^6, C312^3, C313^3, C314^3, C316^3, C317^2, C318^3
Year III
21 GEOL C411^6, C413^3, C414^6, C415^3, C416^3

63 BSc Specialization in Geology
Year I
17 GEOL C210^3, C211^3, C212^3, C213^3, C216^3, C221^2
3 COMP C211^3
3 Chosen from BIOL C222^3, GEOG C362^3
Year II
25 GEOL C310^2, C311^6, C312^3, C313^3, C314^3, C316^3, C317^2, C318^3
Year III
15 GEOL C411^6, C413^3, C415^3, C416^3

80 BSc Specialization in Geology-Physics
Year I
30 GEOL C210^3, C211^3, C212^3, C213^3
PHYS C232^3, C243^3, C253^3, C254^3
MATH C261^6
Years II & III
21 GEOL C216^3, C221^2, C310^2, C311^6, C317^2, C415^3, C422^3
9 Chosen from GEOL C223^2 and Geology 300- and 400-level courses
10 PHYS C291^1, C293^1, C295^2, C364^3, C434^3
10 Chosen from PHYS C244^3, C292^1, C294^1, C335^3, C336^3, C352^3, C392^1, C394^1, C465^3, C494^1, C495^1

78 BSc Specialization in Geology-Chemistry
Year I
30 GEOL C210^3, C211^3, C212^3, C213^3, C216^3,
CHEM C211^6, C241^3, C242^3,
COMP C211^3
Years II & III
15 GEOL C221^2, C310^2, C311^6, C317^2, C415^3
12 Chosen from GEOL C223^2, C312^3, C313^3, C390^3, C411^6, C416^3, C421^3, C423^3
17 CHEM C231^2, C232^2, C290^3, C310^2, C314^2, C315^1, C319^1, C332^2, C342^2
4 Chosen from CHEM C221^3, C222^3, C338^2, C339^2

75 BSc Specialization in Resource Analysis and Land Use
Year I
26 GEOL C210^3, C211^3, C212^3, C213^3, C216^3, C221^2,
GEOG C211^6, C266^3
Years II & III
13 GEOL C310^2, C311^6, C317^2, C415^3
12 Chosen from GEOL C223^2 and Geology 300- and 400-level courses
18 GEOG C317^3, C357^6, C372^6, C475^3
6 from either POLI C361^3, C363^3
or
*ECON C391^3, C396^3
**Requires prerequisites of ECON C201^3, ECON C203^3*

44 BSc Major in Geology (Ecology Option)
Year I
17 GEOL C210^3, C211^3, C215^3, C310^2, BIOL C230^3, C240^3
Year II
15 GEOL C212^3, C213^3, C311^6, BIOL C250^3
Year III
3 GEOL C316^3
6 Credits in Geology
3 Credits in Ecology, in consultation with the Department of Biological Sciences

36 BSc Major in Geology

Year I

17 GEOL C210[3], C211[3], C212[3], C213[3], C216[3], C221[2]

Years II & III

13 GEOL C310[2], C311[6], C317[2], C415[3]

6 Chosen from GEOL C223[2] and Geology 300- and 400-level courses

24 Minor in Geology

12 GEOL C210[3], C211[3], C212[3], C213[3]

12 GEOL elective credits

NOTE: GEOL C202[3], C203[3], C205[3], C206[3], C207[3], C208[3] cover topics of general interest in Earth Sciences and may be taken by students without a strong background in science.

Students without CEGEP Geology 901 or equivalent are required to take GEOL C210[3].

Students seeking admission to the Honours programme on or after June 1, 1977, will be bound by the Honours requirements outlined in §16.2.4 of this Calendar. Students who already had Honours status by June 1, 1977, will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

Field Trips and Field Schools

Field trips, normally conducted on weekends, are mandatory in some of the geology courses. In addition, two field schools (GEOL C216, GEOL C316) are conducted by the staff in the two weeks immediately following the Spring exams. Enrolment in field schools is normally restricted to students registered in programmes for which they are required courses. Other geology students with appropriate prerequisites will be accepted only if space is available in the courses.

Summer Employment

It is strongly recommended that, prior to graduation, at least one summer be spent in some phase of geological work. Although the Department of Geology cannot guarantee summer employment, its students can normally expect to work in geology with government agencies or private exploration companies during the summer months.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

GEOLOGY C202
Oceanography (3 credits)

Geomorphology of the ocean floor, with emphasis on the significance of the mid-oceanic ridges and trench systems. The physical and chemical characteristics and circulation of ocean waters and their causes. Tides and waves. Distribution and origin of terrigenous, biogenous, chemogenic, volcanogenic, and polygenic sediments in the ocean basins. Conditions of oceanic sedimentation. Quantitative distribution of suspended sedimentary materials at the ocean bottom. Size composition of suspensions and bottom sediments. Economic resource potential of the oceans. Lectures only.

NOTE: Geology students in degree programmes may not take this course for Geology credits.

GEOLOGY C203
Man and His Geological Environment
(3 credits)

Prerequisite: None; GEOL C210 recommended. Geology in the ecosystem. The earth'satmosphere, hydrosphere, lithosphere, and biosphere in geologic time. Long-range geological effects of ecosphere pollution. Trace nutrients and health, with emphasis on the geology of trace-elements and their cause and effect on biological systems. Understanding of, control for, and prevention of natural hazards. Changes in the earth's climate. Role of Geology in land use. Lectures only.

NOTE: Students in degree programmes in Geology may not take this course for Geology credits.

GEOLOGY C205
Non-Renewable Resources (3 credits)

Prerequisite: None; GEOL C210 recommended. Rocks and ore minerals. Present and future availability of earth resources. The nature, classification, and mode of occurrence of mineral deposits. Exploration, development, and rational exploitation of mineral resources. Elements of mining economics. Distribution of oil, gas, coal, and base-metal deposits. Evaluation of the effects of mining operations on environment. Lectures only.

NOTE: Students in degree programmes in Geology may not take this course for Geology credits.

GEOLOGY C206
Earthquakes, Drifting Continents and Volcanoes (3 credits)

The aim of the course is to provide an up-to-date account of our present knowledge of earthquakes and volcanoes and their global connections which will be of general interest for students with little or no previous background in earth science. Areas of concentration will be: nature, distribution and causes of earthquakes and volcanic eruptions, earthquake waves and their effects, measuring earthquakes, great earthquakes and volcanic eruptions in world history, products of volcanic eruptions, four billion years of volcanism on the Earth and elsewhere in the solar system. Prediction of earthquakes and volcanic eruptions and global connections between earthquakes, drifting continents and volcanoes. Lectures only.

NOTE: Geology students in degree programmes may not take this course for Geology credits.

GEOLOGY C207
North America and the Great Ice Age
(3 credits)

The aim of the course is to present the major principles of geology upon which our knowledge of the ice age is based. Areas of concentration will be: the development of the glacial theory, glaciers and glaciation, tracking ancient glaciers, glacial chronology in North America, two million years of cold spells and warm spells, earlier glaciations, causes of glacial climates, speculations for the future and the effect of glacial loads on the earth's crust. Lectures only.

NOTE: Geology students in degree programmes may not take this course for Geology credits.

GEOLOGY C208
The Earth, Moon and the Planets (3 credits)
The course emphasizes the cosmic perspective of the Earth and focuses attention on how the results of the last two decades of planetary exploration have brought about an intellectual revolution concerning the planets, especially their surface features, processes and histories. Lectures only.
NOTE: Geology students in degree programmes may not take this course for Geology credits.

GEOLOGY C210
Physical Geology (3 credits)
An elementary study of minerals and rocks, and of the internal and external processes which shape the earth's surface. Laboratory work deals with identification of minerals, rocks, and fossils, as well as interpretation of topographic and geologic maps. Field trips to Mount Royal, Eastern Townships, and Laurentians. Lectures and laboratory.

GEOLOGY C211
Mineralogy I (3 credits)
Physical and chemical properties of minerals. Crystallography, crystal notation, stereographic projection. Crystal structures. Identification, description, and classification of minerals. One or two field trips near Montreal. Lectures and laboratory.

GEOLOGY C212
Invertebrate Paleontology (3 credits)
Prerequisite: GEOL C210, or equivalent. A systematic survey of major invertebrate fossil groups, with chief emphasis on morphology, classification, and geologic occurrence. Study of principles of evolutionary concepts and zonation. Some selected discussion on paleoecology. Lectures and laboratory.

GEOLOGY C213
Structural Geology I (3 credits)
Prerequisite: GEOL C210 or equivalent, previously or concurrently or permission of the Department. Major structural features of the Earth; principles of rock deformation; primary structures in igneous and sedimentary rocks and their significance. Classification and analysis of folds and fractures, study of secondary structures associated with folding. Laboratory deals with structural problems solved by orthographic and stereographic methods. Several field trips to selected outcrop areas, with reports. Lectures and laboratory.

GEOLOGY C215
Photogeology (3 credits)
Prerequisite: GEOL C213, previously or concurrently, or permission of the Department. Evaluation of rocks, landforms, and geologic structures by means of aerial photographs. Principles of photointerpretation and photogrammetry. Introduction to remote sensing. Laboratory: geological interpretation of stereopairs from Canada and other countries; horizontal and vertical measurements and calculations. Construction of base maps using triangulation methods. Preparation of a geological map, with sections and report based on photointerpretation. Lectures and laboratory.

GEOLOGY C216
Field Methods (3 credits)
Prerequisite: GEOL C213, C221. Elements of surveying, construction of base maps. Geological field methods: description and recording of geological field data, construction of geological maps. Collection and presentation of field data in exploration geophysics and exploration geochemistry. One lecture per week in the Winter Session and two-week field school in the Spring, immediately after the final examinations.

GEOLOGY C221
Physics of the Earth (2 credits)
Prerequisite: CEGEP Mathematics 103, 203, Physics 303, GEOL C210 or equivalent. This course is directed toward the general understanding of physical phenomena of the solid earth. Subjects for consideration include the following: earth's origin, age, radioactivity, magnetism, gravity field, seismology, heat flow, structure and physical state of the earth's interior. Lectures only.

GEOLOGY C223
Introduction to Geochemistry (2 credits)
Prerequisite: CEGEP Chemistry 201, Physics 30I, Mathematics 103, 203; GEOL C210. The course will focus on the application of concepts of elementary chemistry to geological problems. Subjects for consideration include: application of thermodynamics to geological problems, phase equilibria relationships in petrogenesis, partitioning of elements, crystal chemistry, distribution of elements, chemistry of natural waters including properties of water at high temperatures and pressures. Lectures only.
NOTE: Students who have credit for GEOL C222 may not take this course for credits.

GEOLOGY C310
Historical Geology (2 credits)
Prerequisite: GEOL C212 and C213, or permission of the Department. Fundamental concepts in Historical Geology; principles of stratigraphy, paleogeography and geochronology. A systematic review of the geological history of the Earth, and development of life forms from the Precambrian to Recent. Geological evolution of classical areas with special attention to the North American continent. Studies of stratigraphic sections and geological maps. Lectures only.

GEOLOGY C311
Introductory Petrology (6 credits)
Prerequisite: GEOL C211. The identification and description of hand specimens of igneous, sedimentary, and metamorphic rocks. Rock associations. Classification and origin of major rock groups. Lectures and laboratory.

GEOLOGY C312
Mineralogy II (3 credits)
Prerequisite: GEOL C211. Point and translational symmetry, point groups, space groups, interpretation of space-group tables, elements of crystal chemistry, chemistry and phase relations of important rock-forming minerals. Stereographic projections of crystal data; the Universal Stage and powder diffractometry in identifying minerals are subjects stressed in laboratories. Lectures and laboratory.

GEOLOGY C313
Optical Crystallography (3 credits)
Prerequisite: GEOL C211. Behaviour of light in crystals. The optical indicatrix. The polarizing microscope and optical properties of minerals. Identification of non-opaque min-

erals in oil immersion and thin sections. If time permits, use of the Universal Stage will be introduced. Lectures and laboratory.

GEOLOGY C314
Stratigraphy (3 credits)
Prerequisite: GEOL C212 and C311. Introduction to historical developments of stratigraphic concepts. Role of natural dynamic processes in the evolution of stratigraphic record. Discussion on stratigraphic classification and nomenclature. Major classification of tectonic elements in sedimentary basins, and broad patterns in the distribution of sedimentary rocks in relation to tectonic framework. Detailed analysis of stratigraphic principles, such as correlation (lithostratigraphic, biostratigraphic, chronostratigraphic), facies (lithofacies; biofacies), unconformities, and cyclotherm. Critical evaluation of stratigraphic sequences using modern and ancient examples for the recognition of aeolian, alluvial fan, fluvial, lacustrine tidal flats, barrier coastlines, carbonate shoreline, shallow marine and submarine environments. Lectures and laboratory.

GEOLOGY C316
Field Geology (3 credits)
Prerequisite: GEOL C216, C311, or permission of the Department. Two-week field work right after the final examination period. Working in groups, students will map an area, prepare sections, and submit a geological map and/or written report. Group studies of important outcrops or outcrop areas and quarries. Transportation is provided by the Department but students must pay for board and lodging.

GEOLOGY C317
Earth Resources (2 credits)
Prerequisite: GEOL C311, previously or concurrently. Economic evaluation of mineral deposits, coal deposits and oil reservoirs. Study of principal ore types of major metal commodities and of fossil fuels, their geological characteristics and world distribution patterns. Lectures only.
NOTE: Students who have received credit for GEOL C412 may not take this course for credits.

GEOLOGY C318
Structural Geology II (3 credits)
Prerequisite: GEOL C213. Concepts of strain and mechanics of deformation. Description of tectonic fabrics and analysis of folds; identification and interpretation of polyphase deformation. Regional structural associations and their evaluation. Laboratory will include field oriented structural problems, drill holes and regional structural analysis. Use of aerial photographs in the preparation of geological maps and sections. Several field trips and structural mapping of selected outcrops or outcrop areas. Lectures and laboratory.

GEOLOGY C322
Phanerozoic Geology of Canada (3 credits)
Prerequisite: GEOL C310, C311 (may be taken concurrently). A study of the geology of Cordilleran, Appalachian and Arctic provinces, platforms and continental shelves of Canada with emphasis on structure, stratigraphy, tectonic evolution and resources. Reading assignments and colloquium are used to probe into specific problems. Lectures and seminars.

GEOLOGY C323
Precambrian Geology of Canada (3 credits)
Prerequisite: GEOL C310, C311 (may be taken concurrently). A study of the geology of the Canadian Shield with emphasis on problems of correlation, tectonic style and distribution of ore deposits. Lectures and seminars.

GEOLOGY C324
Analytical Methods in Geochemistry (6 credits)
Prerequisite: CEGEP Chemistry 201; CEGEP Physics 301; CEGEP Mathematics 103 and 203; or equivalent courses. Chemical equilibrium as applied to volumetric and gravimetric procedures; general theory of volumetric titrations; titration curves; application of general titration theory to neutralization precipitation; complexation oxidation- reduction and nonaqueous solvent titrations; theory of potentiometry and potentiometric titrations; theory of gravimetric analysis; methods of separation by chemical and physical means; electrogravimetry and electrolytic separations; absorptimetric theory and absorptimetric methods of analysis. Analyses of major and minor components of geological material. Lectures and laboratory.
NOTE: A student who has obtained credits for CHEM C211 may not take this course for credit.

GEOLOGY C325
Geostatistics and Computer Applications in Geology (3 credits)
Prerequisite: GEOL C210, or equivalent. Statistical analysis and computing methods applied to geological problems. Lectures and laboratory.

GEOLOGY C390
Petrology (3 credits)
Prerequisite: GEOL C311, C313. Microscopic study of thin sections of common igneous, metamorphic and sedimentary rocks. Selected topics in petrogenesis. Lectures and laboratory.
NOTE: Students who have received credit for GEOL C411 may not take this course for credits.

GEOLOGY C411
Igneous and Metamorphic Petrology (6 credits)
Prerequisite: GEOL C311, C312 and C313. Interpretation of phase diagrams. Mineralogy, fabric, and petrogenesis of igneous and metamorphic rocks. Magmatic and metamorphic processes. ACF and AKF diagrams for various metamorphic facies. Study of selected problems. Lectures and laboratory.
NOTE: Students who have received credit for GEOL C390 may claim only three credits for this course.

GEOLOGY C413
Sedimentary Petrology (3 credits)
Prerequisite: GEOL C311 and C313. General principles of sediment diagenesis, followed by detailed analysis of the diagenetic evolution of sandstone, shale, and carbonate rocks. Emphasis is placed heavily on the microscopic criteria in the recognition of diagenetic fabric. Problems of primary sedimentary structures and their hydro-dynamic interpretation are also discussed. Specialized topics on current development in sedimentary lithogenesis are also included. Lectures and laboratory.

GEOLOGY C414
Undergraduate Research (6 credits)

Prerequisite: For Third-Year Honours students. Honours students in their final year are expected to show competence in isolating and examining a geological problem under the supervision of a faculty adviser. A written application to take the course, including a brief outline of the research project, must be made to the Department before April 15 of the second year. The application will be reviewed by a committee and a decision forwarded by mail. The results of research must be presented in the form of an undergraduate thesis, two copies of which must be submitted by April 25.

NOTE: Written requests from Specialization students, with appropriate academic records, to take the course will be considered.

GEOLOGY C415
Tectonics (3 credits)

Prerequisite: GEOL C213, C221, C311. Techniques of data collection in tectonics. Structure and rheology of the upper mantle. Tectonics of crustal types to include shields, platforms, passive continental margins, Phanerozoic foldbelts, continental rifts, island-arc trench belts and oceanic rises. Sea-floor spreading, plate tectonics, magma associations and plate reconstructions. Crustal origin and growth. Lectures and laboratory.

NOTE: Students who have received credit for GEOL C315 may not take this course for credits.

GEOLOGY C416
Ore Petrology (3 credits)

Prerequisite: GEOL C317; GEOL C390 or C411, previously or concurrently. Petrologic studies of principal types of metallic and non-metallic mineral deposits and their genesis including the use of stable isotopes and fluid inclusions. Laboratory will include the integrated study of ore suites in handspecimen and microscopically. Lectures and laboratory.

NOTE: Students who have received credit for GEOL C412 may not take this course for credits.

GEOLOGY C421
Exploration Geochemistry (3 credits)

Prerequisite: GEOL C311, or permission of the Department. Basic principles; primary and secondary dispersion processes and their significance in geochemical exploration; field and analytical techniques (one field excursion early in the fall term); interpretation of geochemical data; organization of exploration programmes; selected case histories. Lectures and laboratory.

GEOLOGY C422
Exploration Geophysics (3 credits)

Prerequisite: GEOL C221, or permission of the Department. A brief study of the principles of magnetic, gravimetric, electric, and seismic methods of mineral exploration; interpretation of geophysical data; organization of exploration programmes; selected case histories. Lectures and laboratory.

GEOLOGY C423
Introduction to X-ray Crystallography (3 credits)

Prerequisite: GEOL C312. The nature of X-rays, diffraction, the reciprocal lattice, powder diffractometer, powder cameras, single-crystal methods. Laboratory work will stress the techniques of powder diffractometry and precession photography. Lectures and laboratory.

GEOLOGY C424
Engineering Geology (3 credits)

Prerequisite: GEOL C210, or equivalent (GEOL C213 and C215 are recommended). Engineering properties of rocks and soils. Landslides, groundwater, frost action, and permanently frozen ground. Application of geology to engineering problems - concrete petrology, tunnels, slope control, foundations, roads, airports, dams, and reservoirs. One term paper to be prepared. The laboratory period will include field trips, engineering geology, case histories, and feasibility study of engineering geology problems. Lectures and laboratory.

GEOLOGY C425
Fossil Fuels (3 credits)

Prerequisite: GEOL C314, C415 or permission of the Department. Origin and accumulation of petroleum hydrocarbons and coal. Distribution of oil, natural gas, and coal deposits as a function of geological environments. Geology of major oil and coal fields of the world. Global energy requirements and production forecasts. Lectures and laboratory.

31.150 Health Education

Administrator
R.H. PALLEN, *Associate Dean, Division III*

Coordinator
J. BARCLAY

PROGRAMMES

Health Education offers three programmes:
1. B.A. Specialization in Community Nursing
2. Certificate in Community Nursing
3. Certificate in Health Education

Beginning January 1, 1983, no new students will be admitted into Health Education Programmes. Courses will continue to be scheduled to meet the needs of students in the programmes.

All three programmes may be taken on a full-time or part-time basis. A minimum of one course in a semester is mandatory in all three programmes.

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

66 BA Specialization in Community Nursing
Prerequisite: R.N.
Year I
18 NURS C205^3, HEAL C206^6, C209^3, C211^3, C215^3
Year II
24 NURS C301^3, C307^3, HEAL C320^6, HEAL C323^3, NURS C324^6, C325^3
Year III
12 NURS C415^3, C417^3, C435^3, C436^3
12 Elective credits in Nursing chosen in consultation with the programme adviser

45 Certificate in Community Nursing
Prerequisite: R.N.
45 HEAL C206^6, NURS C213^3, C301^3, C307^3, HEAL C320^6, C323^3, NURS C324^6, C325^3, C415^3, C417^3, C435^3, C436^3

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

45 Certificate in Health Education
18 HEAL C206^6, C209^3, C320^6, C323^3
27 Elective credits in Health chosen in consultation with the programme adviser.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

Nursing Courses

NURSING C205
Current Issues in Nursing (3 credits)
An introductory course designed to explore, at the local and national levels, educational and professional concepts of nursing, their similarities and differences, and their influence on the changing patterns in nursing. The major intent is to illustrate the relationship between the profession, the impinging pressure to change, and nursing's reaction and response to this concept.

NURSING C213
Basic Nutrition (3 credits)
The goal of this course is to provide instruction on theoretical and practical knowledge of normal nutrition. The course content includes food habits and food ways; psychological, sociological, and cultural effects on food habits; the world food crisis; hunger and its effects on people; major nutrients and their interrelationships in human nutrition. The Nutrition Canada Survey assessment of nutrition status will be discussed. Nutrition during the life span, pregnancy and lactation, growth and development, aging and the aged will be described. Weight control, food economics, protection of food supply, food fads and fallacies will be examined.
NOTE: This course is not available to students who have received credit for an equivalent course.

NURSING C301
Pharmacology for Nurses (3 credits)
Prerequisite: HEAL C206, or equivalent. This course is designed to introduce nurses to the basic concepts of drug pharmacokinetics as the basis for rational therapeutics. The major drug classes will be reviewed, emphasizing those drug effects that are important for the Registered Nurse in providing modern therapeutic care. Stress will be made on the importance of collaboration between professions for the better care of the patient.
NOTE: Students must take NURS C301 and C307 in consecutive terms.

NURSING C307
Pharmacology: The Nurse's Role in the Community (3 credits)

Prerequisite: NURS C301. The purpose of this course is to apply the principles of pharmacodynamics and pharmacokinetics given in NURS C301 to individual and community health problems. The course content includes identification and discussion of major drug classes; hormones, contraceptives, psychotropic drugs, alcohol, opiates, barbiturates, stimulants, hallucinogens, nicotine, antibiotics, etc. The consequences of drug use and abuse in personal, family, and community life, as well as the nurse's role will be considered.

NOTE: Students must take NURS C301 and C307 in consecutive terms.

NURSING C324
Pathophysiology (6 credits)

Prerequisite: HEAL C206. This course will study body systems and the common diseases which attack them. Normal and abnormal functioning will be compared; e.g., the circulatory system and heart disease. Stress will be laid upon control and prevention. The systems to be discussed are: digestive, excretory, endocrine, circulatory, nervous, musculatory, and respiratory.

NURSING C325
Community Nutrition (3 credits)

Prerequisite: NURS C213 or equivalent. This course will apply basic nutrition knowledge to the problems of nutrition in the community. It will prepare students to act as facilitators of change in the food habits of their clients and assist them to practise clinical evaluation of nutrition through field work under supervision. Existing community programmes and resources to improve nutritional status will be evaluated.

NURSING C391
Selected Topics in Nursing (3 credits)

The theme and the methodology will vary according to the special interests of the professor and the needs of the students. The course is designed to provide students with the opportunity to extend their studies beyond the subjects already included in the curriculum.

NURSING C392
Selected Topics in Nursing (3 credits)

Students who have received credit for NURS C391 may register for NURS C392 provided the subject matter is different.

NURSING C393
Anthropological Concepts in Nursing (3 credits)

This course is an introduction to anthropological concepts relevant to nursing problems and an explanation of the application of these concepts. The cross-cultural perspective on health attitudes, illness behaviour, and medical practices is of particular interest to nurses providing service to culturally diverse communities and to third-world medical aid programmes. No previous anthropology is required.

NURSING C395
Leadership and Community Change (3 credits)

Prerequisite: HEAL C209 and C320, or equivalent. This course examines a variety of leadership styles and the effectiveness of each in producing social change. Students learn methods of determining when social change is needed and methods of planning, implementing, and evaluating interventions designed to produce such changes.

NURSING C415
Community Nursing I: Nursing Assessment (3 credits)

Prerequisite: HEAL C215 and C323. This course is designed to help students to learn to make comprehensive community nursing-care plans. Such plans require understanding of the ethnic, cultural, demographic, and socio-economic influences upon the lives of people and of the methods for collecting data with which to assess the health needs of the individuals and families comprising a community.

NOTE: NURS C415 and C417 must be taken in consecutive terms.

NURSING C417
Community Nursing II: Roles in Intervention (3 credits)

Prerequisite: NURS C415. In this course, students study the concerns of governments, educational institutions, and health agencies with the prevention of disease and the promotion of health. They learn ways in which nurses may intervene to help individuals and families to adopt healthful life styles.

NOTE: NURS C415 and C417 must be taken in consecutive terms.

NURSING C431
School Health Nursing (3 credits)

This course presents the health needs of school pupils and personnel. It explores the responsibilities of provincial and local Departments of Health, the school authorities, and the school personnel and nurse in meeting these needs. It assists nurses to plan programmes of health services, health education, and healthful school living for various levels and types of schools, to inaugurate such programmes, and to coordinate the efforts of schools and community agencies to promote health and prevent illness in schools.

NURSING C433
Nursing the Elderly (3 credits)

This course provides a study of the physiological and psychological adjustments necessary to adapt a life style to the later years of life. It attempts to assist students to make an accurate assessment of a client's physical, social, and emotional condition, to use available health resources to maintain or restore health, and to develop guidelines for home care, health counselling, referral to other health professionals, and follow-up.

NURSING C435
Family Structure and Health Care Delivery I (3 credits)

Prerequisite: NURS C417. This course is concerned with the life cycle of the family structure, the interaction between the ever-changing family relationships and the health system, and the influence of health and disease upon these relationships.

NOTE: NURS C435 and C436 must be taken in consecutive terms.

NURSING C436
Family Structure and Health Care Delivery II (3 credits)

Prerequisite: NURS C435. Building on the theoretical knowledge of NURS C435, this course emphasizes home visiting, patterns of

home-care process recording, teaching families to know and use suitable community agencies. Stress is placed on knowledge of healthful life styles as a means of preventing illness.

NOTE: NURS C435 and C436 must be taken in consecutive terms.

NURSING C437
Occupational Health Nursing(3 credits)
This course will deal with the relationship between doctor and nurse, employer and employee; management and the health department. Also, the role of the nurse today and tomorrow in our rapidly changing society. Instruction will consist of lectures, group discussions, and practical applications through field work and simulation.

NURSING C495
Advanced Topics in Nursing (3 credits)
Prerequisite: As determined by the programme adviser. The theme will vary according to the special interests of the professor and the needs of the students. The course is designed to provide students with the opportunity to take advantage of the special interests and expertise of a professor, and to develop this knowledge and these abilities in an area not covered in the programme.

NURSING C496
Advanced Topics in Nursing (3 credits)
Prerequisite: As determined by the programme adviser. A student who has received credit for NURS C495 may register for NURS C496 provided the subject matter is different.

NURSING C497
Advanced Topics in Nursing (3 credits)
Prerequisite: As determined by the programme adviser. The theme will vary according to the special interests of the professor and the needs of the students. The course is designed to provide students with the opportunity to take advantage of the special interests and expertise of a professor, and to develop this knowledge and these abilities in an area not covered in the programme.

NURSING C498
Advanced Topics in Nursing (3 credits)
Prerequisite: As determined by the programme adviser. A student who has received credit for NURS C497 may register for NURS C498 provided the subject matter is different.

Health Education Courses

HEALTH EDUCATION C206
Applied Human Physiology (6 credits)
Prerequisite: R.N. or CEGEP Biology or BIOL C201, or equivalent. A course on the functions of the human body. A detailed analysis of homeostasis from a systems approach will be given. Physiological processes as applied to clinical testing will be described.

HEALTH EDUCATION C208
Nutrition in the 80's(6 credits)
This course will study the influence of socio-economic and political systems on the nutritional status of the individual, and the interrelationship between food habits and the cultural, social, and psychological aspects of life. Topics will include diet-related problems such as obesity, heart disease, faulty eating habits, malnutrition. Food budgeting for all levels of the socio-economic structure will be examined.

HEALTH EDUCATION C209
Personal Interrelations(3 credits)
This course is designed to provide an orientation to the field of interpersonal relationship and human awareness, focusing particularly on relating to and working with other people. Concepts of personal growth and development will be highlighted.

HEALTH EDUCATION C211
Clinical Epidemiology and Biostatistics I
(3 credits)
The purpose of this course is to present the concepts and methods of epidemiology as they are applied to a variety of disease problems. Emphasis is placed on the integration of biological and statistical elements in the sequence of epidemiological reasoning that derives inferences about the etiology of disease from population data. The course will concentrate on epidemiology of infectious disease and the measurement of health status in a community. *NOTE See §200.7*

NOTE: HEAL C211 and C215 must be taken in consecutive terms.

HEALTH EDUCATION C215
Clinical Epidemiology and Biostatistics II
(3 credits)
Prerequisite: HEAL C211. Necessary statistical methods for conducting and analyzing epidemiological studies will be further described. Retrospective and prospective studies are defined and described. Their impact as a means of determining association between etiological factors and disease will be discussed. The advantages and disadvantages of these methods of investigation will be compared. Classical epidemiological experiments and clinical serials will be reviewed. These will be analyzed in the context of health care research. *NOTE See §200.7*

NOTE: HEAL C211 and C215 must be taken in consecutive terms.

HEALTH EDUCATION C251
Hunger in the Classroom: The School's Role(3 credits)
Review of evidence indicating existence of malnutrition in schools in Quebec, followed by discussion of observable effects of hunger and malnutrition in the classroom. Discussion of various programmes and approaches by the school administration, the school board, the teachers, nurses, etc., taken to alleviate the problem. Topics of discussion will include: Action for school lunches; Malnutrition; Learning and behaviour - Nutrition education programme.

HEALTH EDUCATION C261
Community Health Information(3 credits)
This course will investigate the formal and informal patterns in Health Education. This information will be applied in order to plan pertinent programmes that will serve society. Data collected will be used in curriculum-planning exercises and programme development within formal educational systems, such as schools and CEGEPs, in such areas as cardiovascular disease, anti-smoking clinics, family life education.

HEALTH EDUCATION C270
School Health Services Seminar(6 credits)
The seminar will deal with current issues of

school health, nationally and locally, and their effect on our present school health programmes. It will consider the interrelation of the school administrators, the family, community, and health professionals in utilizing existing resources for a more efficient distribution of health care to school-age children. The need for leadership, group participation, and community cooperation in defining and dealing with priorities will be demonstrated through the media of case studies and problem-solving techniques.

HEALTH EDUCATION C319
Drug Use and Abuse(3 credits)

The course is structured to introduce non-medical personnel to the modern concepts of drug therapeutics, and to discuss the consequences of use and abuse of drugs. The drug classifications will include steroids, antibiotics, minor and major psychotropics, and the potential chronic abuse of drugs such as amphetamines and other stimulants, barbiturates, and other sedatives, hallucinogens, minor tranquilizers, opiate narcotics, alcohol, and tobacco.

HEALTH EDUCATION C320
Interviewing Techniques and Counselling Concepts (6 credits)

Prerequisite: HEAL C209, or equivalent. A course in which the student examines the dynamics of helping interviews, models of human effectiveness, and theories of counselling. The variety of issues to be covered includes the enhancement of specific skills through different training experiences, a proper emphasis on self-understanding, an awareness of the role of philosophy, ethical standards, and research. This course demands a high level of observation, participation, and involvement from each student.

NOTE: Students will receive no more than 6 credits from among HEAL C320, APSS C451 and APSS C452.

HEALTH EDUCATION C323
Teaching Strategies for the Health Professional (3 credits)

Prerequisite: HEAL C209 and HEAL C320. This course is designed to meet the needs of individuals who are involved in educational programmes in schools, industry, clinics, volunteer agencies, in-service programmes, etc., aimed at promotion and maintenance of health, prevention of disease, and rehabilitation.

HEALTH EDUCATION C397
Selected Topics in Health Education(3 credits)

The theme and the methodology will vary according to the special interests of the professor and the needs of the students. The course is designed to provide students with the opportunity to extend their studies beyond the subjects already included in the curriculum.

HEALTH EDUCATION C398
Selected Topics in Health Education(3 credits)

A student who has received credit for HEAL C397 may register for HEAL C398 provided the subject matter is different.

HEALTH EDUCATION C401
Public Health Administration(3 credits)

The basic objective of this course is to make the student aware of the administrative structure of the health-care system in the Province of Quebec and elsewhere. Emphasis will be centered around the planning of health-care programmes, health economics, and various health administrative systems commonly used today. Case analysis will be used to study the solving of health administrative problems.

HEALTH EDUCATION C403
The Law and the Health Professional(3 credits)

This course is designed for nurses, other health professionals, and administrators working in various health services. The content includes an analysis of Quebec and Canadian Law, civil and criminal liability and how it affects the health workers, the legal status of a hospital corporation and a community clinic and their interior workings. This course will also provide discussions of patients' rights, informed consent to treatment, recent Canadian court decisions on malpractice, and other subjects of interest to the students.

HEALTH EDUCATION C408
Group Structure and the Role of the Community Worker(6 credits)

The course is developed to assist volunteers, interested citizens, social workers, and individuals with no formal health training but working as a part of a multidisciplinary team, to identify their roles in order to play a more effective part as community workers. Assignments will be directed toward practical applications of field work to problem-solving in a field of their choice: i.e., post-retirement, rehabilitation of drug addicts and alcoholics, single parents, etc.

HEALTH EDUCATION C410
Community Mental Health(6 credits)

This course will explore the historical and traditional models of mental health as they relate to the more progressive model of community mental health. The intent is to gain some knowledge of topics of concern within the community: crisis and suicide prevention, how to handle specific situations such as problems in a school, industry, home, and clinical setting. The course is structured for people in the helping professions: nurses, social workers, counsellors, teachers, nutritionists, etc.

HEALTH EDUCATION C418
Current Health Issues (6 credits)

This course deals with areas selected for their epidemiological importance in the understanding of modern health problems. Implications of human ecology, pollution, and environment on disease outcomes will be described.

HEALTH EDUCATION C472
Special Workshop on Human Sexuality (6 credits)

The course investigates "Psychological Concepts of Human Sexuality as they influence Family Planning and Sex Education." The study will explore variations in sexual patterning, therapy and counselling, biological, anthropological and ontological perspectives of sexuality. Open to educators, guidance counsellors, nurses, social workers, and psychologists.

NOTE: This course may be taken only by students registered in the Health Education or Nursing Programmes. Students will receive no more than 6 credits from HEAL C472 and APSS C453.

31.160 History

Chairman
C.L. BERTRAND, *Associate Professor*

Professors
A.H. ADAMSON
J.F. LAFFEY
J.C. NISH
L. ROTHKRUG
R. TITTLER

Adjunct Professor of History
E.E. McCULLOUGH

Associate Professors
F.G.W. ADAMS
F. BODE
F.R. CHALK
M.G. DECARIE
R.J. DIUBALDO
D. GINTER
J.L. HILL
W.H. HUBBARD
F.H. KRANTZ
M. MANSON
R. RUDIN
S.J. SCHEINBERG
M. SINGER
I.H. SMITH
W. VAN NUS
M. VIPOND

Research Associate Professor of Medieval History
R.T. COOLIDGE

Assistant Professors
K. BINDON
F.E. SHLOSSER

Visiting Assisting Professor
T. SOCKNAT

Post-Retirement Professor
G. RUDE

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in History
The following courses in an approved sequence constitute Honours in History. Students intending to enter the Honours programme are advised to consult with the Department.

*6	HIST C201^{3} and C202^{3}
*6	HIST C203^{3} and C205^{3}
*6	From surveys in United States, Asian, African, or Latin American History
6	HIST C200^{6}
12	HIST electives at 300 level
6	HIST electives at 400 level
6	HIST C391^{6}
6	HIST C493^{6}
6	History electives at 400 level, or related course(s) in another department (with approval from Department of History)

72 BA Joint Honours in History and English
See Section 31.004

72 BA Joint Honours in History and French
See Section 31.004

72 BA Honours in History and Philosophy
See Section 31.004

66 BA Honours in History and Religion
See Section 31.004

60 BA Specialization in History

*6	HIST C201^{3} and C202^{3}
*6	HIST C203^{3} and C205^{3}
*12	From surveys in United States, Asian, African, or Latin American history
24	HIST electives at any level
6	HIST electives at 400 level
6	Electives from related disciplines (with approval of History Department)

**Students will be exempted from these courses if they can show they took comparable courses in CEGEP. The student will be required to take 6 credits from History electives in their place. In the Major and Honours programmes, a student who is exempted from HIST C201 or C202, and from HIST C203, C205, is encouraged to take a course in Asian, African, or Latin American history.*

60 BA Joint Specialization in History and English

6	Chosen from ENGL C256 through C284
6	ENGL C310^{6}, C311^{3}, C312^{3}, C328^{3}, C329^{3}, C330^{6}
12	ENGL credits chosen from two different periods to parallel History courses to be chosen in consultation with the departments
6	ENGL elective credits
12	HIST credits chosen from two different historical periods to parallel English courses to be chosen in consultation with the departments
18	HIST elective credits

42 BA Major in History

*6	HIST C201^{3} and C202^{3}, or C218^{6}
*6	HIST C203^{3} and C205^{3}

*6 From survey courses in United States, Asian, African, or Latin American history
6 Electives from related disciplines (with approval from History Department)
18 HIST electives at 300 or 400 level

24 **Minor in History**
*6 HIST C201[3], C202[3], or C203[3] and C205[3]
6 HIST electives at any level
12 HIST electives at 300 or 400 level

**Students will be exempted from these courses if they can show they took comparable courses in CEGEP. The student will be required to take 6 credits from History electives in their place. In the Major and Honours programmes, a student who is exempted from HIST C201 or C202, and from HIST C203, C205, is encouraged to take a course in Asian, African, or Latin American history.*

30 **Minor or Certificate in the History of Quebec**
This programme is designed to prepare teachers at both the Secondary and CEGEP levels to offer courses in the History of Quebec. It also provides an outline of study for those who are generally interested in the topic of Quebec History.
3 HIST C209[3]
3 HIST C210[3]
12 HIST C307[3], C308[3], C315[6]
6 HIST C400[6] or C411[6]
6 Chosen from courses on Quebec or French Canada offered by the Departments of Economics, Études Françaises, Geography, Political Science or Sociology.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

HISTORY C200
The Nature and Practice of History (6 credits)
This course, open only to History students, will address itself to two types of concerns. Students will examine the nature of historical enquiry: its varieties, purposes, traditions, and its place in contemporary society. In addition, they will receive systematic introduction to the practical aspects of critical scholarship: the use of the library, methods of research, and forms of writing critical essays.

HISTORY C201
Introduction to European History to 1789 (3 credits)
A survey of the history of Europe to the French Revolution, with emphasis on the development of ideas and political institutions.

HISTORY C202
Introduction to European History, from 1789 to the Present (3 credits)
A survey of the history of Europe from the French Revolution to the present, with emphasis on the development of ideas and political institutions.

HISTORY C203
History of Canada, Pre-Confederation (3 credits)
A survey of Canadian history, from settlement to Confederation, emphasizing readings and discussions on selected problems.

HISTORY C205
History of Canada, Post-Confederation (3 credits)
A survey of Canadian history from Confederation to the present, emphasizing readings and discussions on selected problems.

HISTORY C208
Native Peoples of Canada (6 credits)
This course examines the Canadian Native experience from a multi-disciplinary perspective, including history, law, education, the arts, etc. Focusing on Eastern Canada and, in particular, Quebec, it attempts to understand the Native experience and contemporary situation.

HISTORY C209
Quebec to 1867 (3 credits)
An introduction to the social, economic, and political history of Quebec prior to Confederation.

HISTORY C210
Quebec since Confederation (3 credits)
An introduction to the social, economic, and political history of Quebec since 1867.

HISTORY C215
History of Recreation and Leisure in Canada (3 credits)
A survey of the history of recreation and leisure from the time of European contact with native peoples to the present day. It is placed in the context of Canadian history to examine such phenomena as European and American influences on Canada, effects of urbanization, the roles of women in society, and the commercialization of leisure. Recreation and leisure are understood to include not only sports and games but such activities as rural bees, education, drinking, gambling, and celebrations. The course will also provide an introduction to the historical literature on recreation and leisure, and to the discipline of History.

HISTORY C219
(Also given as Classics C230)
The Ancient Near East I (3 credits)
A survey of the political, social, economic, and intellectual history of the Ancient Near East, from the Neolithic age to the Indo-European invasions of the early 2nd Millennium, with special emphasis placed upon the problem of the emergence of civilization in

Mesopotamia, Egypt, and the Indus valley. Ancient sources utilized wherever possible.

HISTORY C221
(Also given as Classics C231)
The Ancient Near East II (3 credits)
A survey of the political, social, economic, and intellectual history of the Ancient Near East, from the Indo-European invasion of the early 2nd Millennium to the establishment of the Persian Empire, with special emphasis placed upon the process of diffusion of civilization throughout the Near Eastern World, the creation of Egyptian, Mesopotamian, and Persian imperialism, and the development of Hebrew monotheism. Ancient sources utilized wherever possible.

HISTORY C223
(Also given as Classics C240)
Greek History I (3 credits)
A political, social, economic, and cultural history of Greece from Minoan - Mycenaean times to the end of Classical Greek civilization in the fourth century B.C., with special emphasis placed upon fifth-century Athens.

HISTORY C224
(Also given as Classics C241)
Greek History II (3 credits)
A political, social, economic, and cultural history of the Greek World from Alexander the Great to the Roman conquest of Greece in 146 B.C. While due attention will be paid to developments within the Hellenistic kingdoms and to the later Greek achievements in art, literature, science, philosophy, and religion, the process of fusion of Hellenism with the orient - vital for the evolution of Judaism, Christianity, and Islam - will be extensively explored.

HISTORY C225
(Also given as Classics C242)
Roman History (3 credits)
A political, social, economic, and cultural history of Rome from the city's origins to the establishment of the Roman Empire under the Emperor Augustus.

HISTORY C226
(Also given as Classics C243)
History of the Roman Empire (3 credits)
A political, social, economic, and cultural history of the Roman Empire from Augustus to Justinian the Great. Attention will be paid to the rise of Christianity and the continuity of Roman law and administration in both the eastern and western parts of the Late Roman Empire.
NOTE: Students who have credit for HIST C320 (CLASS C343) may not take this course for credits.

HISTORY C231
The World since 1914 (6 credits)
A discussion of the main trends of world history - political, diplomatic, socio-economic, and cultural - since World War I. Special attention will be given to European developments.

HISTORY C251
History of the United States to 1877
(3 credits)
Survey of American history from settlement to 1877. The course will deal with the political and economic framework of American history, and with social and cultural trends.

HISTORY C253
History of the United States since 1877
(3 credits)
Survey of American history from 1877 to the present. The course will deal with the political and economic framework of American history, and with social and cultural trends.

HISTORY C261
History of India (3 credits)
An introduction to the intellectual traditions, social structures, and political institutions of South Asia, with particular attention to developments during the past two centuries

HISTORY C262
History of China (3 credits)
A survey of China's history from earliest times to the modern era.

HISTORY C263
History of Japan (3 credits)
A survey of Japan's history from earliest times to the modern era.

HISTORY C271
Modern Africa (6 credits)
This course will focus on Africa south of the Sahara from the late nineteenth century up to the present. It will examine the following themes: imperialism, colonial economic and social transformations, nationalism, neo-colonialism and revolutionary movements.
NOTE: Students who have received credit for HIST C270 and C272 may not take this course for credits.

HISTORY C275
Latin America from Conquest to Castro
(6 credits)
This course provides a broad survey of Latin American history. Emphasis in the first term will be placed on: pre-Colombian civilizations (Aztec, Mayan, Incan); the impact of the Spanish conquest; the economic, social and political structure of colonial Latin America; the wars of independence. Major themes in the second term will include: the roots of dictatorship and political instability; the persistence of economic dependency; the Mexican revolution; landlord and peasant in the nineteenth and twentieth century; U.S.-Latin American relations; the Cuban revolution; contemporary Latin America.

HISTORY C280
Historical Perspectives on Contemporary Issues (6 credits)
A thematic and comparative historical approach to contemporary issues. The course will cross national boundaries to consider major current problems from a variety of historical perspectives.

HISTORY C302
Approaches to Canadian History (6 credits)
In this course, students will examine the many types of sources for Canadian History, including photographs, songs, and advertisements, as well as more commonly used sources such as newspaper reports, diaries, and parliamentary records. Students will be encouraged to carry out research and writing in areas of personal interest, using original sources.

HISTORY C304
Protest Movements in Canada since Confederation (6 credits)
An examination of the social and intellectual origins of political protest in Canada since 1867. Topics will include agrarian revolt, labour organization, and sectional discontent, with emphasis on such third parties as Canada First, Progressive Party, C.C.F., Social Credit, Union Nationale, and Parti Québécois.

HISTORY C307
History of Montreal (3 credits)
A study of the origins of the city, its role in the Empire of the St. Lawrence, and its rise to metropolitan dominance in Canada. Special emphasis on economic development and on ethnic groupings.

HISTORY C308
History of English-Speaking Quebec (3 credits)
An analysis of the experience of the different groups which have made up this community, from the Conquest to the present.

HISTORY C309
History of the Canadian North (3 credits)
An intensive study of the advance of the northern frontier of Canada, with emphasis on the period 1840-1945. The course will stress exploration, problems of sovereignty, conflict of cultures, and economic development.

HISTORY C310
Politics and Economics of Canadian Development (6 credits)
This course will deal with the impact of both economic and political forces upon the development of the Canadian economy from the French régime to the present.

HISTORY C311
British North America (6 credits)
An advanced study of British North America from the conquest to the early years of Confederation. The course will focus on topics and problems organized according to the regions of British North America.

HISTORY C312
Canada in the Twentieth Century (6 credits)
An intensive study of the political, economic, social, and cultural development of modern Canada.

HISTORY C315
Quebec: 1867 to the Present (6 credits)
An intensive study of Quebec since Confederation. While due attention will be paid to the political history of Quebec, the purpose of the course is to provide a study of the social, economic, and cultural institutions of Quebec.

HISTORY C317
Canada Views the United States (3 credits)
An examination of Canadian attitudes to the United States from 1776 to the present, with respect to both specific incidents and general trends. Emphasis will be placed on the discussion of primary source material.

HISTORY C318
Women in Western History (6 credits)
A review of the position and roles of women in Western history prior to the seventeenth century. Beginning with the seventeenth century, a more detailed discussion of these themes and close scrutiny of selected problems having to do with the roles of women in Europe, Canada, and the United States during the last two centuries. Among the problems to be treated will be the history of the Feminist movements, the relationship of women to the process of industrialization, and the impact of the world wars of this century on the condition of women.

HISTORY C319
A Literary History of Twentieth-Century Canada (3 credits)
An examination of some of the major themes of Canadian history in the twentieth century as seen by Canadian novelists, English and French. Themes studied will include the struggle for survival; regional, ethnic, and religious plurality; and the response to urbanization and industrialization.

HISTORY C322
History of Medieval Europe (6 credits)
A study of the society and institutions of medieval Europe from the fall of Rome to the end of the fifteenth century.

HISTORY C324
(Also given as CLAS C345)
History of Byzantium, 602-1453 (6 credits)
A survey of the transformation from Late Roman Empire into the Byzantine commonwealth, and changes in economic and social conditions. Special attention is given to the reorganization of administrative and military structures, the relationship between Byzantium and its Balkan neighbours, the Arab conquest, and the rising importance of Asia Minor.

HISTORY C325
Renaissance Europe (3 credits)
This course explores the elements of transition between the Medieval and Early Modern World in Western Europe, with special reference to the cultural experiences of the Italian Peninsula. Particular attention is devoted to the traditions of scholarship, education, political and social thought, and cultural expression which one usually associates with the period, and such figures as Petrarch, Donatello, Salutati, Lorenzo di Medici, Castiglione, Machiavelli, and Michelangelo.

HISTORY C326
History of the Reformation (3 credits)
An examination of the late Medieval context for the European Reformation, the Reformation itself, and the significance of the Reformation for the development of Western thought and society. Particular attention to the intellectual and behavioural reactions to the disintegration of Medieval society, as well as to the traditions of Luther, Zwingli, Calvin, and others who comprise the mainstream of Reformation ideas. The growth of toleration, the relations of church and state, and analogies with communal groups in our own society will also be examined.

HISTORY C327
History of Early Modern Europe, 1400-1640 (6 credits)
European history in the Renaissance and Reformation periods. Special attention is given to the shift from Medieval to Renaissance civilization in Italy and to the development of early modern societies in Northern Europe. Specific analytical focus is placed on

studying the nature of, and relationships between, pre-modern economic, social, and cultural structures. Issues involved in the transition to modern societies on different national bases are also stressed.

HISTORY C328
Social and Intellectual History of Early Modern Europe (6 credits)
A study of change and continuity in European society and culture, 1300-1650. Problems studied include feudal-capitalist relationships, the Italian Renaissance, Northern State Development, Protestant Reformation, Scientific Revolution, and European Colonial expansion. Methodological issues will be emphasized.

HISTORY C330
Europe 1640-1848 (6 credits)
European history in the age of the French Revolution, including a study of the scientific and industrial revolutions.

HISTORY C334
Social and Intellectual History of Modern Europe (6 credits)
The intellectual systems arising in Europe since the seventeenth century will be explored in the context of the economic and social circumstances which engendered them. This course will begin with the rise of theories of "possessive individualism", and will end with the contemporary cultural crisis. While attention will be paid to the general dynamics of culture, special attention will be devoted to the social functions of particular ideologies.

HISTORY C335
Europe 1848-1918 (6 credits)
A study of the development of the European nation states from the upheavals of 1848 and the industrialization of Europe to the rise of imperialism and the catastrophe of World War I.

HISTORY C336
Europe since 1918 (6 credits)
A study of the internal development and external relations of the nations of Europe from World War I and the revolutions of 1917-1918 to the era of détente, eurocommunism and the energy crisis.

HISTORY C337
Europe and the Industrial Revolution: The Origins of Modern Society (3 credits)
An examination of change and stability in the social and economic structure of Europe during the first age of industrialization, c. 1760 to c. 1900.

HISTORY C338
European Society and Economy in the Twentieth Century: The Crisis of Capitalism (3 credits)
An examination of stability and change in the social and economic structure of Europe in the contemporary age.

HISTORY C339
Nineteenth-Century Civilization seen through the Novel (3 credits)
An examination of the major currents in nineteenth-century European history as seen in the novels of such writers as Dickens, Balzac, Stendhal, Dostoevsky, Flaubert, and Zola.

HISTORY C340
Twentieth-Century Civilization seen through the Novel (3 credits)
A study of the main themes in contemporary history as expressed in the novels of such writers as Remarque, Malraux, Hamsun, Solzhenitsyn, Pasternak, Camus, and Mailer.

HISTORY C341
History of European Diplomacy, 1870 to the Present (6 credits)
An intensive study of the relations among the Great Powers of Europe, from the Franco-Prussian War to the present.

HISTORY C342
History of Britain since 1460 (6 credits)
A survey of the political, economic, and social development of modern England. Emphasis is placed on the evolution of parliamentary government in the early period, on the economic changes of the eighteenth and nineteenth centuries, and on the modern growth of democracy and the social-service state.

HISTORY C343
Social and Economic History of Britain, 1500-1900 (6 credits)
A study of the transition from a feudal to a modern industrial society. Attention will be given to the leading features of industrial, agricultural, commercial, and financial change and their impact on the structure of society.

HISTORY C344
France since 1789 (6 credits)
A study of French history since the Revolution, with special emphasis on social and intellectual development.

HISTORY C345
(Also given as German C345)
Germany and Austria in Modern Times (6 credits)
Socio-economic change and the development of nation-states in German Central Europe from the eighteenth century to the present. For advance reading, the student might consult H. Holborn, *A History of Modern Germany*.

HISTORY C346
History of Modern Italy (6 credits)
Survey of the history of modern Italy. Emphasis will be placed on the Risorgimento, the crisis of liberal democracy, the rise of fascism, and postwar problems.

HISTORY C347
History of Russia (6 credits)
This course traces the origin of the Slavic-speaking peoples in Europe and the emergence of the Russian Empire. After a discussion of the ideology and history of Bolshevism, it studies the history of communist government in the U.S.S.R. and among the Slavic peoples.

HISTORY C348
History of Ireland (3 credits)
A survey course that traces the history of Ireland from 432 A.D. to the present. Emphasis will be on the nineteenth and twentieth centuries. Special attention will be given to the development of Irish nationalism and relations with Great Britain. Irish music and literature will be used to supplement the historical perspective.

HISTORY C349
History of World War II (3 credits)
This course examines the impact of World War II in the social, economic, political and military spheres. Description of international diplomacy and major battles will be linked to a study of the social effects of the War, such as resistance movements and technological innovation.

HISTORY C350
America in the Seventeenth Century (3 credits)
This course examines the founding of the thirteen American colonies, with emphasis on Chesapeake society and New England puritanism.

HISTORY C351
America in the Eighteenth Century (3 credits)
This course examines the rise of sense of nationhood, the War for Independence, and the adoption of the U.S. Constitution.

HISTORY C352
Early National History of the United States (3 credits)
This course examines the political, social, and economic history of the new nation, the rise and fall of the federalist party, and the triumph of Jeffersonian democracy.

HISTORY C353
The United States in the Nineteenth Century (6 credits)
The development of American political, social, and economic life in the nineteenth century, including sectionalism and expansion, the characteristics of plantation slavery as a social system, the coming of the Civil War, and the aims and outcome of Reconstruction.

HISTORY C354
The United States in the Twentieth Century (6 credits)
This course examines the development of corporate capitalism. It emphasizes the role of liberal ideology, the growth of the labour movement, the function of democratic politics, and the varied movements which have sought social change.

HISTORY C357
Foreign Relations of the United States to 1917 (3 credits)
An analysis of United States foreign policy from the American Revolution to United States entry into World War I, emphasizing the domestic debate over foreign policy and economic development, commercial and territorial expansion, and the dynamics of Canadian-American relations.

HISTORY C358
Foreign Relations of the United States, 1917 to the Present (3 credits)
An historical investigation of United States foreign policy from American intervention in the Russian Revolution to the present, emphasizing United States responses to the challenge of revolutions in Asia and Africa. American conceptions of a new world order, the rise of the multinational corporation and its impact on Canadian-American relations.

HISTORY C359
Social and Economic History of the United States (6 credits)
A survey of the relationship between economic and social change in the United States from the colonial period to the mid-twentieth century. Particular attention will be given to the transition from an agricultural and mercantile society in the early nineteenth century to an urban-industrial society in the early twentieth-century.

HISTORY C361
History of Modern India (6 credits)
A study of India, Pakistan, and Bangladesh. The legacy of divergent cultural, linguistic, and political experiences, the crisis of colonialism, and the emergence of national imperatives in the twentieth century.

HISTORY C362
Traditional China (6 credits)
An examination of Chinese history from the beginning to the Ch'ing dynasty (c. 1800). Emphasis will be placed on China's political, intellectual, and cultural heritage.

HISTORY C363
Modern China (6 credits)
An intensive study of Chinese history since 1800, with emphasis on problems in political, social, and intellectual history.

HISTORY C371
Liberation Movements in Africa (3 credits)
A study of the liberation movements in Guinea, Angola, Mozambique, Rhodesia, and Namibia.

HISTORY C373
Africa and the Caribbean (3 credits)
The African origins of the peoples of the West Indies, the slave trade, and the modern history of the Caribbean Islands will be studied.

HISTORY C374
Industry and Empire (6 credits)
This course will investigate the nature of capitalist imperialism as it emerged in the nineteenth century, by a study of Great Britain and her colonial world. The course will begin with a study of British economy and society itself, so that the changes brought about by the Industrial Revolution may be seen. Then, the forms of domination, formal and informal, will be examined. Finally, some of the theories that have been used to explain the connection between industrialization and imperialism will be studied.

HISTORY C375
France, 1661-1715: The Age of Louis XIV (3 credits)
This course will deal with the political, economic, social, and cultural developments during the period of personal monarchy of Louis XIV.

HISTORY C376
France, 1715-1789: From Regency to Revolution (3 credits)
This course will examine the political, economic, social, and cultural developments in eighteenth-century France. Special attention will be given to the French Enlightenment and to the tensions leading to the Revolution.

HISTORY C380
Urban Planning in Historical Perspective
(6 credits)
This lecture-and-discussion course assesses the development of Canadian cities in general and of Montreal in particular, with special stress on the implications for planning. Topics include the relative importance of geographic site and entrepreneurship in the rise of cities, the metropolitan dominance of, and rivalry between, Montreal and Toronto, the history of the early town planning movement in Canada with discussion of its British roots, the conflict among competing language and cultural groups in Montreal, and the aesthetic and cultural costs of post-war urban redevelopment.
NOTE: Students who have credit for INTE or URBS C380 may not take this course for credits.

HISTORY C388
Revolution and Counter-Revolution: The Background to Contemporary Latin America (6 credits)
A survey of the roots of instability and reaction in Latin America. Attention will be paid to the following major themes: the impact of the conquest; the socio-economic and political pattern of colonial Latin America; the character and significance of the wars of liberation; peasant and other popular movements; the origins and nature of modern liberation movements.

HISTORY C391
Introduction to the Research Essay
(6 credits)
Prerequisite: Enrolment in the BA Honours programme in History. The student will begin to work with an individual faculty member on a specific topic. The necessary secondary reading will be completed and primary research will begin towards the project which will be completed in HIST C493.

HISTORY C393
Special Area Studies (6 credits)
This course affords an opportunity to study a special theme in history, taking advantage of the particular interests of members of the Department.

HISTORY C394
Special Area Studies (6 credits)
Students who receive credit for HIST C393 may take it again as HIST C394, provided a different subject is dealt with the second time.

HISTORY C395
Topics in History (3 credits)
This course will vary according to the interests of the instructor.

HISTORY C396
Topics in History (3 credits)
Students who receive credit for HIST C395 may register for HIST C396, provided a different subject is dealt with the second time.

HISTORY C400
Problems in Quebec History (6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits)
or permission of the Department. Seminar in a selected topic in the history of Quebec. The specific content will vary from year to year.

HISTORY C411
Advanced Study in Canadian History
(6 credits)
Prerequisite: HIST C203 and C205, and one 300-level course. Seminar in a selected topic in the history of Canada. The emphasis will be on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content will vary from year to year depending on the instructor. Topics may be selected from subjects as "Canadian Intellectual History", "The City in Canadian History", "Canada in the 1920's and 1930's", and "Canadian Social History".

HISTORY C412
Advanced Study in Canadian History
(6 credits)
Prerequisite: HIST C203 and C205, and one 300-level course. A student repeating HIST C411 registers for credits under HIST C412, provided the subject matter is different.

HISTORY C426
Advanced Study in Late Classical and Medieval Europe (6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits) or permission of the Department. Seminar in a selected topic in the history of late classical and medieval Europe. The emphasis will be on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content will vary from year to year depending on the instructor.

HISTORY C430
Advanced Study in Early Modern Europe
(6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits) or permission of the Department. Seminar in a selected topic in the history of early modern Europe. The emphasis will be on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content will vary from year to year depending on the instructor. Topics may be selected from such subjects as "Cultural Differentiation in Early Modern France and Germany" and "The Enlightenment".

HISTORY C436
Advanced Study in Modern Europe
(6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits) or permission of the Department. Seminar in a selected topic in the history of modern Europe. The emphasis will be on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content will vary from year to year depending on the instructor. Topics may be selected from such subjects as "Popular Protest in Nineteenth-Century Europe," "Revolutionary Tradition in Nineteenth-Century France," "Fascism," "Background of World War I," and "Nationalism and Industrialization in Central Europe."

HISTORY C438
Advanced Study in British History
(6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits) or permission of the Department. Seminar in a selected topic in the history of

Great Britain. The emphasis will be on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content will vary from year to year depending on the instructor. Topics may be selected from such subjects as "Tudor England," "Stuart England," and "Structural Change in the English Countryside, 1500-1900."

HISTORY C441
Advanced Study in Russian and Soviet History (6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits) or permission of the Department. This course deals with specific problems in Tsarist and Soviet Russia. In the Pre-Revolutionary period, attention is focused on the emancipation of the peasantry, industrialization, and the growth of the opposition parties. In the Soviet period, emphasis is placed on the problems of economic growth, the changing pattern of Soviet Marxism, and the nature of Soviet foreign policy.

HISTORY C451
Advanced Study in American History (6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits) or permission of the Department. Seminar in a selected topic in the history of the United States. The emphasis will be on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content will vary from year to year depending on the instructor.

HISTORY C461
Advanced Study in Asian History (6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits) or permission of the Department. Seminar in a selected topic in Asian history. The emphasis will be on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content will vary from year to year depending on the instructor.

HISTORY C470
Advanced Study in African History (6 credits)
Prerequisite: A survey course in the field and a 300-level course in History (minimum 3 credits) or permission of the Department. Seminar in a selected topic in the history of Africa. The emphasis will be on encouraging students to conduct historical investigation on their own, under a professor's guidance. The specific content will vary from year to year.

HISTORY C476
Imperialism and Revolution in the Third World (6 credits)
Prerequisite: Asian and African survey courses. A comparison of the techniques and effects of imperialism in Asia, Africa, and Latin America during the late nineteenth and twentieth centuries. Modern independence and revolutionary movements in these areas will be examined from a comparative perspective.

HISTORY C490
Joint History-English Tutorial (6 credits)
A tutorial conceived as an interdisciplinary effort between the Department of History and the Department of English, and designed specifically to satisfy a requirement for the History-English joint Honours programme. Tutorials may be arranged with members of the respective departments.

HISTORY C491
Advanced Study in a Special Subject (6 credits)
Prerequisite: Permission of the Department. This course, intended primarily for Honours or Major students, affords an opportunity for more intensive examination of a particular historical theme than is possible in the normal lecture course. The specific subject will vary according to the special interest of the professor offering the course in any given year.

HISTORY C492
Advanced Study in a Special Subject (6 credits)
Prerequisite: Permission of the Department. A student repeating HIST C491 registers for credits under HIST C492, provided the subject matter is different.

HISTORY C493
Honours Essay Tutorial (6 credits)
Prerequisite: HIST C391 previously or concurrently. This course is open only to Honours students in history. The student will work with an individual faculty member in a particular area of history. The student will be asked to produce a sustained piece of written work to be read by his/her adviser and at least one other member of the Department.

HISTORY C494
Advanced Study in the History of Science (6 credits)
Prerequisite: Permission of the Department. Seminar in a selected topic in the History of Science. The emphasis will be on encouraging students to conduct historical investigations on their own, under a professor's guidance. The specific content will vary from year to year depending on the instructor.

HISTORY C495
Advanced Study in the History of Science (6 credits)
Prerequisite: Permission of the Department. A student repeating HIST C494 registers for credits under HIST C495, provided the subject matter is different.

HISTORY C496
Joint History - French Tutorial (6 credits)
Prerequisite: Permission of the Department. A Tutorial conceived as an interdisciplinary effort between the Department of History and the Department of French and designed specifically to satisfy a requirement for the History - French joint Honours programme. Tutorials may be arranged with members of the respective departments.

31.170 Interdisciplinary Studies

INDIVIDUAL STUDIES PROGRAMME

Under the direction of the Provost's Office

Individually Structured Programmes (Specialization or Honours)

Admission

Opportunities are available in some departments and programmes to follow an Individually Structured Specialization or Honours Programme. Students must apply to the department that seems most relevant to the central aspect of their proposed programme. Students in general must have demonstrated in their previous academic endeavours that they are capable of good (B level) achievement, but in exceptional cases a student may be admitted provisionally on the recommendation of the department undergraduate coordinator.

Formal entry to the ISP may occur only after completion of preparatory courses such as are required in Matury Entry and ECP programmes. Students wishing to follow an Honours programme must follow the Faculty procedures and regulations concerning admission to Honours programmes.

Academic Regulations

The programme will consist of not less than 60 credits. The courses chosen must be based on a departmental or programme core, usually the major, but not less than 24 credits. Students will thus be required to complete necessary prerequisites, and general preparation courses such as Research Methods or Statistics, so that they could later follow a regular departmental programme if they so desire.

A specific level of performance will be required. At the time of going to press this level had not been determined.

Students in Honours programmes must meet the Faculty Honours requirements.

The programme of study must be worked out at the time of student registration into the programme. Admission to the programme must be finalized before a student registers for the final 60 credits of the 90-credit protion of their degree. To allow for the non-availability of certain courses during certain sessions, allowable substitute courses must be listed in advance. Such substitution provisions will be necessary only in the case of specialized courses that are known not to be available on a session by session basis. The intention of this regulation is to assure that the programme does not become an *ad hoc* mixture of courses without clearly rationalized academic coherence.

Students must prepare a careful, not necessarily long, statement of their goals indicating the specific reasons for their programme choice. The rationale and the sequence of courses chosen must be approved by the departmental programme coordinator and the Assistant Dean for Student Academic Affairs.

All correspondence concerning the Individual Studies Programme should be addressed to:

Individual Studies Programme
Office of the Provost
Concordia University
Arts and Science
Room H-401
1455 de Maisonneuve West
Montreal, P.Q. H3G 1M8

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

HUMANITIES 110
General Course in Humanities (6 credits)

It is the purpose of this course to enlarge and enrich the student's comprehension of his cultural heritage by the study of man as a unique creative being. The sources for this study of man are drawn primarily from the fields of history, philosophy, religion, literature and the arts with a view toward examining those experiences and ideas of enduring power which have shaped the nature of modern man from the age of Greece to the present century. (6 credits, which may not be applied to the degree programme of students admitted to the University on the basis of the D.E.C. or formal academic equivalent).

SOCIAL SCIENCE 110
General Course in the Social Sciences (6 credits)

This course has a dual purpose: to introduce the student to some of the basic concepts and subject matter of the various social sciences and to demonstrate their interrelation; and to provide the student with some knowledge of contemporary society and the social problems which confront it. (6 credits, which may not be applied to the degree programme of students admitted to the University on the basis of the D.E.C. or formal academic equivalent).

INTERDISCIPLINARY STUDIES C200
Introduction to the Methods of the Humanities and Social Sciences (6 credits)

This course will introduce students to representative methods used in the humanities and social sciences. Methodologies suitable to each discipline will be shown through examples and projects centered upon themes with Canadian content where possible. Instruction will be shared by the professors from the disciplines concerned.

INTERDISCIPLINARY STUDIES C201
Aesthetics: An Interdisciplinary Approach (6 credits)

This course attempts to bring together a

number of areas central to the cultural climate of our time, with emphasis on aesthetics, and man's encounter with the creative arts. The course examines the relation of aesthetics, generally, (and art in particular) to the crisis in values, and to contemporary identity crisis. More specifically, artistic questions such as the meanings and functions of style, taste, and criticism; the questions of form and content, subjectivity and objectivity in art; and the comparison of different artistic media are integrated into the broader issues noted above. The course's format is lecture and discussion, with the use of slides, recordings, and films as illustrative material.

INTERDISCIPLINARY STUDIES C230
Philosophy and Literature I: The Ancient World (3 credits)

The interaction of philosophy and imaginative literature in the ancient world, from the origins of civilization in Mesopotamia through some of the major texts of Ancient Greece and Rome. Reading and discussion of literature with a high thematic content and philosophy with important literary connections: for example, selections from *Gilgamesh, The Iliad,* and the works of Aeschylus, Sophocles, Euripides, Plato, Aristotle, Lucretius, and Virgil. There will be special emphasis on the following topics: epic, fate and free will, and justics in the individual and the community.

NOTE: Students who have received credit for INTE C300 or L391 may not take this course for credits.

INTERDISCIPLINARY STUDIES C231
Philosophy and Literature II: The Middle Ages and the Renaissance (3 credits)

The interaction of philosophy and imaginative literature in the Middle Ages and the Renaissance, from late Rome to 1605. Reading and discussion of literature with a high thematic content and philosophy with important literary connections: for example, selections from *The Romance of the Rose,* and the works of Apuleius, Augustine, Dante, Thomas Aquinas, Machiavelli, Marlowe and Shakespeare. There will be special emphasis on the following topics: romance, faith, reason, and will.

NOTE: Students who have received credit for INTE C302 or L393 may not take this course for credits.

INTERDISCIPLINARY STUDIES C232
Philosophy and Literature III: The Modern World (1605-1832) (3 credits)

The interaction of philosophy and imaginative literature in the Western World in the seventeenth, eighteenth, and early nineteenth centuries. Reading and discussion of literature with a high thematic content and philosophy with close literary connections: for example, from the works of such authors as Bacon, Pascal, Newton, Milton, Locke, Berkeley, Pope, Rousseau, Hume, Goethe, Kant, Blake and Shelley. There will be special emphasis on the following topics: the development of natural science, the problem of perception, classicism and romanticism.

NOTE: Students who have received credit for INTE C300 or L391 may not take this course for credits.

INTERDISCIPLINARY STUDIES C233
Philosophy and Literature IV: The Modern World (1832-The Present) (3 credits)

The interaction of philosophy and imaginative literature in the Western World in the nineteenth and twentieth centuries. Reading and discussion of literature with a high thematic content and philosophy with close literary connections: for example, from the works of such authors as Mill, Darwin, Dostoevesky, Shaw, Freud, Sartre, and Kafka. There will be special emphasis on the following topics: the theory of evolution, the emergence of modern psychology, and existentialism.

NOTE: Students who have received credit for INTE C302 or L393 may not take this course for credits.

INTERDISCIPLINARY STUDIES C300
Selected Topics in Interdisciplinary Studies (3 credits)

The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult the Director before registering, in order to be sure of the title of the course in any one session.

NOTE: With the permission of the Director, students may take this course twice for credits, provided that a different subject is dealt with the second time, and will register under INTE C301.

INTERDISCIPLINARY STUDIES C301
Selected Topics in Interdisciplinary Studies (3 credits)

Students who have received credit for INTE C300 may register for INTE C301 provided the subject matter is different.

INTERDISCIPLINARY STUDIES C302
Lecture Series (3 credits)

This course provides a flexible context for study in a field of immediate or specific interest. The theme or topic discussed will vary from year to year.

INTERDISCIPLINARY STUDIES C400
Self-Elected Specialization Tutorial (6 credits)

Prerequisite: Reserved for Self-Elected Specialization students in their final year. This tutorial is directed by a faculty member from a field of studies relevant to the student's programme. The faculty member will be chosen by the Director in consultation with the student concerned. The tutorial Director will supervise an intensive reading programme and assist the student in the preparation of a paper. The tutorial is intended to bring together the various fields of knowledge included in the student's programme.

31.180 Journalism

Associate Professor and Director
L. CRYSLER

Assistant Professor
E. RAUDSEPP, *Assistant Director*

Sessional Instructors
S. ARNOPOULOS, *Freelance Journalist and Author*
G. BISHOP, *Broadcast Journalist*
B. DUFRESNE, *Administrator, Canada Employment and Immigration Commission*
M. FARBER, *Sports Reporter and Columnist*
J. FREED, *Freelance Journalist and Author*
B. GAURON, *Special Assistant to Director of Information*
P. McCALLUM, *Lawyer*
D. McGILLIVRAY, *Economics Editor, Southam News Services*
A. PHILLIPS, *Assistant City Editor*
M. RABOY, *Freelance Journalist and Editor*
G. SCOTT, *Freelance Journalist and Author*
S. WOODS, *Line-up Editor, Television News*
D. YATES, *Journalist and Editor*

ADMISSION AND GRADUATION REQUIREMENTS

Enrolment in the writing workshops in the Journalism Programme is limited and depends on the applicants' successful completion of the admission procedures outlined in the following paragraphs.

All applicants should apply through the University Admissions Office; they must also contact the Journalism Programme office at 482-0320, Ext. 421, before April 1 for an interview.

Admission procedures include: a test of English proficiency; a letter of application of about 300 words describing the student's academic and work background and aspirations in journalism; and an interview. Although it will not determine acceptance, applicants are advised that a working knowledge of French is important.

Due to enrolment limitations, priority of placement is given to students enrolled in the specific Journalism programmes.

A student must achieve a final mark of C or better in the reporting workshops in order to proceed to the next level.

To graduate with a Minor, Major or Specialization in Journalism, a student must demonstrate a working knowledge of French. Tests of oral and reading proficiency in French are administered by the Département d'Études Françaises on behalf of the Journalism programme, which is responsible for the final evaluation of each student's competence.

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Specialization in Broadcast Journalism
NOTE: Students must meet the admission requirements of both the Department of Communication Studies and the Journalism Programme. This programme is designed to prepare graduates for the English-language media.

Year I
15 JOUR C201^{6}, COMS C240^{3}, C278^{3}, C284^{3}
3 Chosen from JOUR C205^{3}, C210^{3}

Year II
9 JOUR C300^{3}, C306^{3}, C310^{3}
6 Chosen from COMS C378^{6}, C381^{6}, C387^{6}
3 Chosen from COMS C340^{3}, C342^{3}

Year III
9 JOUR C415^{3}, C420^{3}, COMS C446^{3}
15 Additional Communication and/or Journalism courses. With the approval of the Chairman of the Communication Studies Department or the Director of the Journalism Programme, 6 of these credits may be cognate course(s) outside Communication and Journalism. With approval, a maximum of 6 of these credits may be from Communication Group C courses.

60 BA Specialization in Journalism and Communication
NOTE: Students must meet the admission requirements of both the Department of Communication Studies and the Journalism Programme. This programme is designed to prepare graduates for the English-language media.

Year I
12 JOUR C201^{6}, C205^{3}, COMS C240^{3}
6 Chosen from COMS C275^{3}, C278^{3}, C284^{3}

Year II and III
12 JOUR C301^{6}, C400^{3}, C402^{3} or C403^{3}
6 Chosen from Communication Group A courses
6 Chosen from Communication Group B courses
18 Additional Communication and/or Journalism courses. With the approval of the Chairman of the Communication Studies Department or the Director of the Journalism Programme, 6 of these credits may be cognate course(s) outside Communication and

Journalism. A maximum of 6 of these credits may be from Communication Group C courses.

42	**BA Major in Journalism**
	Year I
12	JOUR C201[6], C205[3], C210[3]
6	Chosen from HIST C203[3] and C205[3]; or POLI C250[6]
	Year II
15	JOUR C301[6], C306[3], C310[3], COMS C360[3]
	Year III
3	JOUR C400[3]
3	Chosen from JOUR C402[3], C403[3]
3	Chosen from JOUR C410[3], C415[3]

30	**BA Minor in Journalism**
	Year I
12	JOUR C201[6], C205[3], C210[3]
	Year II
9	JOUR C301[6], C310[3]
	Year III
6	JOUR C400[3], C410[3]
3	Chosen from JOUR C402[3], C403[3]

Written work in writing and reporting workshop courses is in English; please consult the Department.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

JOURNALISM C201
Writing and Reporting I (6 credits)
Prerequisite: Permission of the Director. This course gives training in basic reporting and newswriting. Students will practise writing news and will receive out-of-classroom assignments.

JOURNALISM C205
History of Journalism (3 credits)
A history of the news media in the English-speaking world, starting with the government gazettes of seventeenth-century England and their illegal, underground competition, through the "news" papers of the eighteenth century, the rise of the yellow press, the human interest story, the penny press in the nineteenth century, down to today's corporate press. The course is designed to show that our expectations of the news media are not inherent in human nature, but are the result of historical processes that continue to evolve.

JOURNALISM C210
The Media in Quebec (3 credits)
This course studies the special characteristics of Quebec media, focusing particularly on the historical development of Quebec journalism and the part it has played in the shaping of modern Quebec. Particular attention is given to the influence of journalists in cultural and political affairs. The recent increasing concentration of media ownership will be examined. Much of the reading material is in French.
NOTE: Students who have credit for JOUR C305 may not take this course for credits.

JOURNALISM C300
Broadcast Writing and Reporting (3 credits)
Prerequisite: JOUR C201. Restricted to students enrolled in Broadcast Journalism Specialization. A continuing workshop in reporting and writing, concentrating on the coverage of municipal affairs and contemporary urban life. A story project submitted either in written or broadcast form will be required.

JOURNALISM C301
Writing and Reporting II (6 credits)
Prerequisite: JOUR C201. A general workshop in news and feature writing, with assignments emphasizing the journalism of municipal affairs and contemporary urban life.

JOURNALISM C306
Radio News (3 credits)
Prerequisite: Students with second-year standing in the Journalism Major, or Broadcast Journalism Specialization, or Communication Studies students who have permission of the Director. Students will learn to write for newscasts and for longer broadcast formats. There will be field assignments in interviewing, tape editing, and preparation for broadcast.

JOURNALISM C310
The Press and the Law (3 credits)
Prerequisite: Second-year standing in Journalism, or permission of the Director. Lectures will cover those aspects of criminal and civil law which will bear most directly on the work of professional journalists - libel, slander, contempt of court.
NOTE: Students who have credit for JOUR C405 may not take this course for credits.

JOURNALISM C400
Advanced Reporting (3 credits)
Prerequisite: JOUR C301. Students will be introduced to several areas of specialist reporting - economics and business, public affairs, medicine and science, the arts, etc. - and to a variety of journalistic treatments: background, interpretive and investigative reporting.
NOTE: Students who have credit for JOUR C401 may not take this course for credits.

JOURNALISM C402
Specialist Reporting (3 credits)
Prerequisite: JOUR C400. Students will cover a beat in the field of their choice for several weeks, producing news, features, and background stories. A term-end major background story will also be produced. There will be seminars and discussions, with leaders from the media on the specifics of beat coverage and on general media topics, such as trade unionism, ethics, journalistic responsibility.

JOURNALISM C403
Quebec Affairs (3 credits)
Prerequisite: JOUR C400 and fluency in French. Assignments will bring students into contact with leaders from many areas of Quebec life through interviews, press conferences, speeches, and seminars, conducted almost exclusively in French. They will meet politicians, businessmen, labour leaders, en-

tertainers, and artists, and people active at all levels of community life. Students will have the choice of writing in English or French.

JOURNALISM C410
Principles of Editing (3 credits)
Prerequisite: JOUR C301. Lectures and workshops in the art of story editing, with an introduction to layout and design. While the material used is designed primarily for print reproduction, the techniques, and particularly the intellectual processes employed are applicable to all media.

JOURNALISM C415
Television News (3 credits)
Prerequisite: JOUR C306. The study of and practice in the application of news writing and editing for television. Classes and field assignments will cover writing, interviewing, and editing of videotape for short television newscast items and for longer news feature formats.

JOURNALISM C420
Advanced Broadcast Reporting (3 credits)
Prerequisite: JOUR C300 or permission of the Director. An advanced workshop in broadcast reporting, for radio and television, in the fields of Quebec affairs and contemporary social problems. A story project submitted either in written or broadcast form will be required.

JOURNALISM C425
Special Topics in Journalism (3 credits)
Content will depend on the theme designated by the department.

JOURNALISM C426
Special Topics in Journalism (3 credits)
Students who have received credit for JOUR C425 may register for JOUR C426 provided the subject matter is different.

31.190 Library Studies

Coordinator
A.M. GALLER, *Associate Professor*

Assistant Coordinator
C. CAMPBELL, *Associate Professor*

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

36	**BA Major in Library Studies**
6	LIBS C201^3, C202^3
15	LIBS C303^3, C305^3, C320^3, C325^3, C333^3
9	LIBS C331^3, C345^3, C495^3
6	LIBS electives in consultation with the Programme Director
60	**Certificate in Library Studies**
30	LIBS C201^3, C202^3, C303^3, C305^3, C320^3, C325^3, C331^3, C333^3, C345^3, C495^3
6	LIBS electives in consultation with the Programme Director
24	Electives

NOTE: All Library Studies students must take C201 and C202 as prerequisites to all other Library courses, the only exception being LIBS C411 and C461.

The Library Studies Programme offers a *Major in Library Studies* to those who wish to pursue a career in library work at a non-graduate level. For those interested in taking advanced studies at the Master's level, a Double Major will be necessary. (36 credits are required in Library Studies for a Major.)

All new applicants must be interviewed by the Coordinator or Assistant Coordinator. Appointments may be made at the Library Studies Office, 7079 Terrebonne Ave., Montreal West. All students must preregister with the Programme and obtain course approval prior to the date of registration.

Students will be expected to maintain an average of 65% throughout the Programme.

The Certificate in Library Studies is offered to meet the needs of students who may not wish to fulfill the requirements of a Bachelor of Arts degree. All courses in the Programme are 3-credit courses. Sixty (60) credits are required to complete the Certificate Programme, thirty-six (36) of which consist of Library Studies, with twenty-four (24) credits of electives. Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Diploma in Library Studies

The Department also offers a diploma programme for students who have completed their undergraduate degree in another field. Detailed information on the programme is given in the University's Calendar of Graduate Studies.

Prerequisites To All Other Courses

LIBRARY STUDIES C201
Principles of Library Service (3 credits)

LIBRARY STUDIES C202
Organization of Library Services (3 credits)

Required Courses

LIBRARY STUDIES C303
Information Services (3 credits)

LIBRARY STUDIES C305
Bibliographic Searching (3 credits)

LIBRARY STUDIES C320
Cataloguing and Classification Part I
(3 credits)

LIBRARY STUDIES C325
Cataloguing and Classification Part II
(3 credits)

LIBRARY STUDIES C331
Data Processing and Automation (3 credits)

LIBRARY STUDIES C333
Technical Skills - Multi-Media Operations
(3 credits)

LIBRARY STUDIES C345
Technical Skills - Collection Control
(3 credits)

Electives

LIBRARY STUDIES C374
Selected Topics in Library Studies
(3 credits)

LIBRARY STUDIES C376
Selected Topics in Library Studies
(3 credits)

LIBRARY STUDIES C407
Research Methodology (3 credits)

LIBRARY STUDIES C409
Library Research and Library Resources in Science and Technology (3 credits)

LIBRARY STUDIES C410
Computer Applications in Libraries
(3 credits)

LIBRARY STUDIES C411
Library Service and Work with Children
(3 credits)

LIBRARY STUDIES C421
Library Service and Work in Schools (3 credits)

LIBRARY STUDIES C430
Advanced Cataloguing and Classification (3 credits)

LIBRARY STUDIES C432
Library Service and Work in the College and University (3 credits)

LIBRARY STUDIES C435
The Organization of Audiovisual Collections (3 credits)

LIBRARY STUDIES C441
Library Service and Work in Business and Industry (3 credits)

LIBRARY STUDIES C451
Library Service and Work in the Public Library (3 credits)

LIBRARY STUDIES C461
Library Service and Work with the Young Adult (3 credits)

LIBRARY STUDIES C478
Advanced Topics in Library Studies (3 credits)

LIBRARY STUDIES C480
Advanced Topics in Library Studies

Final Required Course
LIBRARY STUDIES C495
Field Practice (3 credits)

Recommended Academic Electives
FRANCAIS C316
Le français de la bibliothéconomie I (3 crédits)

FRANCAIS C317
Le français de la bibliothéconomie II (3 crédits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

LIBRARY STUDIES C201
Principles of Library Service (3 credits)
This course, which is the prerequisite to all others in the programme, lays the groundwork for the development of sound supportive staff in libraries. The objectives of library service, the effective use of the library, its basic tools and terminology, and the skills and duties required of the library technician in the library organization will be introduced as they relate to the principles of librarianship.
NOTE: Students may be required to bear some of the cost of materials.

LIBRARY STUDIES C202
Organization of Library Services (3 credits)
Prerequisite: LIBS C201. This course is primarily concerned with the introduction of the skills and sources needed to utilize library resources and research a term paper, and with the bibliographic form used in documenting research. The course also outlines both internal library functions and organizations, and some of the ways in which libraries cooperate.
NOTE: Students may be required to bear some of the cost of materials.

LIBRARY STUDIES C303
Information Services (3 credits)
Prerequisite: LIBS C201 and C202. The course will examine the basic informational services given in all types of libraries. Standard general reference works will be studied to enable the student to work under a professional librarian in the Information Services Department of a library.

LIBRARY STUDIES C305
Bibliographic Searching (3 credits)
Prerequisite: LIBS C201, C202, C303. This course will provide a broad introduction to bibliographic searching. General and subject bibliographies as well as indexes and directories will be studied to enable the student to use the library's resources effectively. Procedures relating to verifying and searching will be studied in detail as they relate to ordering, cataloguing, and inter-library loans. The mechanics of literature searching, both manual and automated, in any subject field will be introduced. The main emphasis in this course will be on the study of bibliographical sources to enable the student to work in a library as a bibliographical searcher.
NOTE: Students may be required to bear some of cost of the on-line searching.

LIBRARY STUDIES C320
Cataloguing and Classification I (3 credits)
Prerequisite: LIBS C201 and C202. This course is designed to give the student a basic knowledge of book and serial cataloguing. Coverage includes: pre-cataloguing routines, the composition of catalogue cards, and descriptive cataloguing as well as introduction to automated cataloguing. Weekly laboratory sessions, assignments, and readings are required. A knowledge of typing is essential.

LIBRARY STUDIES C325
Cataloguing and Classification II (3 credits)
Prerequisite: LIBS C201, C202, and C320. This course is designed to give the student who possesses a thorough understanding of descriptive cataloguing a basic knowledge of and ability to assign classification numbers and subject headings. Sears and Library of Congress subject headings and the Dewey Decimal classification systems will be studied in depth, but the Library of Congress classification system to a lesser extent.

LIBRARY STUDIES C331
Data Processing and Automation (3 credits)
Prerequisite: LIBS C201 and C202. A basic introduction to the use of computers and a systems approach in solving library problems. Students will receive instruction in flowcharting, and other concepts of systems design and data processing. Automated library applications, services, and networks will be considered. A tour of an automated library or a data centre will provide an insight into the routine technical activities undertaken by, or on behalf of, the library staff. No previous knowledge of or experience in mathematics, business administration, or data processing is required.

LIBRARY STUDIES C333
Technical Skills - Multi-Media Operations (3 credits)

Prerequisite: LIBS C201 and C202. This course will be mainly practical in nature. It will provide the student with the opportunity to operate a broad range of audiovisual equipment found in the modern media centre. It will also introduce the student to the concept of audiovisual media as instructional tools within the library/media centre, by requiring the design, development, and evaluation of an instructional audiovisual project on some aspect of library studies.

NOTE: Students will be required to bear the cost of materials.

LIBRARY STUDIES C345
Technical Skills - Collection Control (3 credits)

Prerequisite: LIBS C201 and C202. The course is designed to provide the student with a thorough understanding of library practices and procedures as related to the acquisition, organization, circulation, housing, and maintenance of library collections. This will include monographs, serials, government publications, technical reports, and pamphlet materials. The student will study circulation control systems and circulation functions including loan policies and procedures, inter-library loans, reserves, overdues, statistics, inventory control, and library security.

NOTE: Students may be required to bear some of the cost of materials.

LIBRARY STUDIES C374
Selected Topics in Library Studies (3 credits)

Prerequisite: LIBS C201 and C202, or permission of Coordinator. Content will depend on the theme designated by the Programme; this theme varies from year to year.

LIBRARY STUDIES C375
Selected Topics in Library Studies (3 credits)

A student who has received credit for LIBS C374 may register for LIBS C375 provided the subject matter is different.

LIBRARY STUDIES C376
Selected Topics in Library Studies (3 credits)

Prerequisite: LIBS C201 and C202, or permission of Coordinator. Content will depend on the theme designated by the Programme; this theme varies from year to year.

LIBRARY STUDIES C377
Selected Topics in Library Studies (3 credits)

A student who has received credit for LIBS C376 may register for LIBS C377 provided the subject matter is different.

LIBRARY STUDIES C407
Research Methodology (3 credits)

Prerequisite: LIBS C303 and C305. The aim of this course is to develop an understanding and appreciation of research methods and approaches specific to subject disciplines, based on the consideration of general principles of research methodology and the planning of logical research strategies. The library-oriented approach ensures a solid background of data from which problems may be attacked and solutions derived. Topics covered in logical progression include: selecting and defining the problem; planning the research programme; developing and testing hypotheses; collecting, classifying, evaluating, and analyzing evidence; drawing conclusions; presenting results. The course assumes general knowledge of reference and bibliographic sources for at least one academic discipline. Students will be evaluated principally on a term paper related to a research strategy, and methods applied to a problem of their own choosing, and on class participation.

LIBRARY STUDIES C409
Library Research and Library Resources in Science and Technology (3 credits)

Prerequisite: LIBS C201, C202; or enrolment in a Major in science or engineering. The course is designed to introduce Science and Engineering undergraduates, as well as the Library Studies student, to the structure of scientific literature, to the basic types of information sources in Science and Technology, and to information networks, and computer-based retrieval systems. The student will also become familiar with search strategies and indexing techniques. Emphasis will be placed on developing skills in the student's particular discipline or interest.

NOTE: Students who have taken LIBS L475 (76/77); L478 (78/79); C376 (79/80) may not take this course for credit.

LIBRARY STUDIES C410
Computer Applications in Libraries (3 credits)

Prerequisite: Completion of all required 300-level courses and permission of the Coordinator. A practical introduction to the operation and use of automated systems and equipment commonly encountered in libraries. Students will become familiar with the techniques of searching large commercially-available data bases for bibliographic retrieval and computer-assisted cataloguing and will gain first-hand experience in searching, altering and operating small-scale circulation and cataloguing systems.

NOTE: Students may be required to bear some of the cost of on-line searching.

LIBRARY STUDIES C411
Library Service and Work with Children (3 credits)

Prerequisite: LIBS C201 and C202, or permission of the Coordinator. The course is designed to introduce the student to the major genres of children's literature. The student examines the methods used in the library to stimulate the child's love of reading and evaluates children's literature through assignments, films and a field trip to a children's library.

LIBRARY STUDIES C421
Library Service and Work in Schools (3 credits)

Prerequisite: LIBS C201 and C202. The duties and responsibilities of the library assistant, library technician and teacher-librarian will be discussed. Topics include programmes for teaching the use of the library, methods for cooperating with teachers, the assembling of materials for instructional units, responding to curriculum demands upon the library, and examining the effects of new curriculum trends in education upon the school library/resource centre.

LIBRARY STUDIES C430
Advanced Cataloguing and Classification
(3 credits)

Prerequisite: LIBS C201, C202, C320 and C325. This course is designed for the student who possesses a working knowledge of basic cataloguing and classification. It will cover Library of Congress Classification in detail, MARC formats and coding of machine-readable cataloguing records. Laboratory sessions and assignments will be required of the student.

LIBRARY STUDIES C432
Library Service and Work in the College and University (3 credits)

Prerequisite: LIBS C201 and C202. The organization, administration, and functions of academic libraries will be studied, with special references to curriculum-oriented library service, and to services relating to large academic research libraries and library colleges.

LIBRARY STUDIES C435
The Organization of Audio-Visual Collections (3 credits)

Prerequisite: LIBS C201, C202, C320 and C325. This course will study audio-visual materials and the tools and aids for their acquisition, cataloguing, and maintenance. Descriptive cataloguing and classification of the various audio-visual documents, and the processing of these materials, as well as their storage and circulation, will be discussed.

LIBRARY STUDIES C441
Library Service and Work in Business and Industry (3 credits)

Prerequisite: LIBS C201 and C202. The role of the library in relation to business and industry will be examined. The specific skills and devices employed to provide direct information to the users will be explored. Management and administrative concerns will be reviewed from the viewpoint of the library and the sponsoring organization.

LIBRARY STUDIES C451
Library Service and Work in the Public Library (3 credits)

Prerequisite: LIBS C201, C202, and permission of Coordinator. This course traces the development of the public library, particularly in Quebec. It deals with the objectives, roles, and functions of public library service in contemporary society. Topics such as freedom of access to information, copyright, public lending right, and collection and preservation of library materials will be explored.

LIBRARY STUDIES C461
Library Service and Work with the Young Adult (3 credits)

Prerequisite: LIBS C201 and C202, or permission of the Coordinator. The course will explore through books the major phenomena of the teenager's world. Some of the skills needed to serve young adults in a library setting will be examined. Literature written especially for young adults, and some adult literature which is especially popular with, and suitable for, young people, will be studied. A pre-course reading list is available.

LIBRARY STUDIES C478
Advanced Topics in Library Studies
(3 credits)

Prerequisite: LIBS C201 and C202, or permission of the Coordinator. This course focuses on advanced topics of interest in Library Studies. Content will depend on the theme determined by the Programme, and will vary from year to year.

LIBRARY STUDIES C479
Advanced Topics in Library Studies
(3 credits)

A student who has received credit for LIBS C478 may register for LIBS C479 provided the subject matter is different.

LIBRARY STUDIES C480
Advanced Topics in Library Studies
(3 credits)

Prerequisite: LIBS C201 and C202, or permission of the Coordinator. This course focuses on advanced topics of interest in Library Studies. Content will depend on the theme determined by the Programme, and will vary from year to year.

LIBRARY STUDIES C481
Advanced Topics in Library Studies
(3 credits)

A student who has received credit for LIBS C480 may register for LIBS C481 provided the subject matter is different.

LIBRARY STUDIES C495
Field Practice (3 credits)

Prerequisite: Completion of all other required library studies courses. In consultation with the appropriate supervising librarian the student will be placed by the Programme Coordinator in a local library system other than in a library in which the student is employed. The duration of the field practice will be five weeks. Field practice will include a wide variety of library tasks. In addition the student will be required to complete a written research project on a topic approved by the field library and the Programme Coordinator.

31.200 Mathematics

Chairman
H. PROPPE, *Associate Professor*

Professors
A. BOYARSKY
T.D. DWIVEDI
R. HALL
R. RAPHAEL
N.E. SMITH
M.E. SZABO
D. WHEELER

Associate Professors
L.S. ADLER
K.K. ANAND
M.M. BELINSKY
M.V. BOBETIC
A. BOSWALL
A. BOYARSKY
M.A. BRIAN
J. BRODY
A. BUCKLEY
W. BYERS
Y. CHAUBEY
G.E. COHEN
M. COHEN
S. ERLWANGER
J.C. HAYES
N. HERSCOVICS
J. HILLEL
A. KEVICZKY
Z. KHALIL
H. KIM
H. KISILEVSKY
G.S. LINGAPPAIAH
M.A. MALIK
A.J. PRILLO
J. SENEZ
R. SMITH
J. SORIC
T.N. SRIVASTAVA
R. STERN
J.C. TURGEON
Y.H. WANG
M. ZAKI

Visiting Associate Professor
J. SONN

Visiting Assistant Professor
S. ALI

Adjunct Associate Professor
A.S. RAO

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

A student wishing to follow a Mathematics Programme but not meeting the entrance requirements should consult with the Department.

By careful choice of electives, students can select whether the emphasis of the programme will be in the area of Pure Mathematics, Applied Mathematics or Statistics.

Students seeking admission to the Honours programme on or after June 1st, 1977 will be bound by the Honours requirements outlined in §16.2.4 of this Calendar. Students who already had Honours status by June 1st, 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

Students in a Mathematics programme may not take any of the following courses for credit: EMAT C212, C232, C252, C271. Students wishing to take other Engineering Mathematics courses for credit must obtain prior approval of the Department.

66 BA or BSc Honours in Mathematics

51 MATH C231^3, C241^6, C261^6, C271^3, C281^6, C362^3, C363^3, C366^3, C382^3, C393^3, C394^3, C461^6, C491^3

9 MATH chosen with prior departmental approval from MATH C322^3, C373^3, C381^3, C392^3, C466^3, C475^3, C492^3, C499^3

6 MATH chosen with prior departmental approval.

60 BA or BSc Specialization in Mathematics

42 MATH C231^3, C241^6, C261^6, C271^3, C281^6, C362^3, C363^3, C366^3, C382^3, C393^3, C394^3

12 MATH chosen with prior departmental approval from MATH C322^3, C373^3, C392^3, C461^6, C466^3, C491^3

6 MATH chosen with prior departmental approval

36 BA or BSc Major in Mathematics

30 MATH C231^3, C241^6, C261^6, C271^3, C281^6, C362^3, C393^3

6 MATH chosen with prior departmental approval from MATH C322^3, C363^3, C366^3, C373^3, C382^3, C392^3, C394^3

66 BA or BSc Honours in Statistics

54 MATH C231^3, C241^6, C261^6, C271^3, C281^6, C344^6, C345^6, C351^3, C362^3, C363^3, C445^3, C461^6

6 MATH chosen with prior departmental approval from MATH C342^3, C343^3, C347^3, C353^3, C451^3

6 MATH chosen with prior departmental approval

60 BA or BSc Specialization in Statistics

45 MATH C231^3, C241^6, C261^6, C271^3, C281^6, C344^6, C345^6, C351^3, C362^3, C363^3

9 MATH chosen with prior departmental approval from MATH C342^3, C343^3, C347^3, C353^3, C445^3, C451^3

6 MATH chosen with prior departmental approval

36 BA or BSc Major in Statistics

30 MATH C231[3], C241[6], C261[6], C271[3], C281[6], C344[6]

6 MATH chosen with prior departmental approval from MATH C342[3], C343[3], C345[6], C347[3], C351[3], C353[3]

60 BA or BSc Specialization in Actuarial Mathematics

54 MATH C225[3], C231[3], C232[3], C241[6], C261[6], C281[6], C311[3], C331[6], C325[6], C345[6], C431[6]

6 MATH C229[2], C329[2], C429[2]

66 BA or BSc Honours in Applied Mathematics

54 MATH C231[3], C241[6], C261[6], C271[3], C281[6], C311[3], C331[6], C362[3], C363[3], C371[3], C431[6], C461[6]

12 MATH or cognate disciplines chosen with prior departmental approval

60 BA or BSc Specialization in Applied Mathematics

48 MATH C231[3], C241[6], C261[6], C271[3], C281[6], C311[3], C331[6], C362[3], C363[3], C371[3], C431[6]

12 MATH or cognate disciplines chosen with prior departmental approval

36 BA or BSc Major in Applied Mathematics

30 MATH C231[3], C241[6], C261[6], C271[3], C281[6], C331[6]

6 MATH chosen with prior departmental approval from MATH C311[3], C312[3], C371[3], C373[3], C431[6], C432[3]

24 Minor in Mathematics

24 MATH C231[3], C241[6], C261[6], C271[3], C281[6]

24 Minor in Statistics

24 MATH C231[3], C241[6], C281[6], C343[3], C344[6]

24 Minor in Mathematics for Students in BA Programmes

24 MATH credits approved by the Department of Mathematics. At least 12 credits must be at the level of MATH C231 or above.

NOTE: Students in BA programmes are also eligible for a regular Minor in Mathematics or Statistics provided they have the necessary prerequisites.

The Department also offers to practising teachers the following undergraduate programmes:

30 Certificate in Mathematics for Teachers (Elementary School Level)

6 MATH C305[6]

24 Chosen from MATH C300[6], C301[6], C302[6], C303[6], C304[6], C307[3], C309[3]

NOTE: Where students have completed similar courses in previous studies, pro tanto credits may be approved up to a maximum of 12 credits. In some cases, students with fewer than 12 pro tanto credits may, with approval of the Faculty of Arts and Science obtained upon the recommendation of the programme director, be permitted to take courses in related areas for credit towards the certificate. However, at least 18 of the credits must be taken within the programme.

30 Certificate in Mathematics for Teachers (Junior Secondary School Level)

15 MATH C400[3], C401[6], C404[6]

15 Chosen from MATH C402[3], C403[3], C405[3], C406[3], C408[3], C409[3], C410[3], C411[3], C417[3], C419[3]

NOTE: In some cases where students have completed similar mathematical courses in previous studies, the Mathematics Department may modify a student's programmes to meet his professional requirements. It may grant pro tanto credits up to a maximum of 12 credits.

For further details about the Certificate Programmes, see §31.290.

MATHEMATICS CO-OPERATIVE PROGRAMME

Director
L.S. Adler, *Associate Professor*

The Mathematics Co-Operative Programme is offered to students who are enrolled in the B.A. or B.Sc. Honours or Specialization in Applied Mathematics or Statistics, or B.A. or B.Sc. Specialization in Actuarial Mathematics.

Students in Mathematics Co-Op take the regular academic programme. The schedule of academic and work periods for an entering group of Mathematics Co-Op students is given in §31.515.

The overseeing of the Mathematics Co-Op Programme is the responsibility of the Director of the Mathematics Co-Operative programme and the departmental Co-Op Committee which provides the connecting link between students, employers and the Institute for Co-Operative Education.

Students interested in applying for Mathematics Co-Op should refer to §31.515 where a full dexcription of the admission requirements is provided or write to The Principal, Institute for Co-Operative Education, 7308 Sherbrooke Street West, Montreal, Quebec, H4B 1R6. For information by telephone see "CONTACTS" in §31.515.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

MATHEMATICS C200
Fundamental Concepts of Algebra
(3 credits)

This course is designed to give students the background necessary for MATH C201. Some previous exposure to algebra is assumed. Sets, algebraic techniques, inequalities, graphs of equations.

NOTE: Students who have credit for MATH C201 or equivalent may not take this course for credits.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C201
Elementary Functions (3 credits)

Sets, inequalities, graphs of functions, and relations. Trigonometric, exponential, and logarithmic functions. Lectures and laboratory.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C202
College Algebra (3 credits)

Progressions, combinations, permutations, Binomial Theorem, mathematical induction, inequalities, polynomials, cartesian and polar forms of complex numbers; conics.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C203
Differential and Integral Calculus I
(3 credits)

Prerequisite: MATH C201, or equivalent. Functional notation. Differentiation of polynomials. The power, product, quotient, and chain rules. Differentiation of elementary functions. Implicit differentiation. Higher derivatives. Maxima and minima. Applications: tangents to plane curves, graphing, related rates. Approximations using the differential. Antiderivatives, definite integrals, area. Lectures and laboratory.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C204
Vectors and Matrices (3 credits)

Prerequisite: MATH C202 or equivalent. Algebra and geometry of vectors, dot and cross products, lines and planes. System of equations, operations on matrices, rank, inverse, quadratic form and rotation of axis.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C205
Differential and Integral Calculus II
(3 credits)

Prerequisite: MATH C203. Techniques of integration: substitutions, integration by parts, partial fractions. Improper integrals. Physical applications of the definite integral. Infinite series: tests for convergence. Power series, Taylor's theorem. Lectures and laboratory.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C206
Algebra and Functions (3 credits)

Coordinate systems. Radicals and distance formula. Polynomials, factoring and graphing. Relations and functions. Linear and quadratic functions, equations and systems. Exponents, exponential and logarithmic functions and equations.

NOTE: Students who have received credit for MATH C201 or equivalent may not take this course for credits.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C207
Statistics for the Social Sciences (3 credits)

Prerequisite: MATH C206 or equivalent, or permission of the Department of Mathematics. Elementary probability, permutations and combinations, binomial and normal distribution. Analysis and organization of statistical data. Tests of hypotheses. Confidence limits. Introduction into linear regression and correlation. Lectures and laboratory. *NOTE See §200.7*

NOTE: Students with credit for MATH C241 or equivalent may not take this course for credits.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C208
Fundamental Mathematics I (3 credits)

Prerequisite: MATH C206, or equivalent. This course is intended primarily for pre-Commerce students. Progressions, compound interest, annuities, permutations, combinations, and binomial theorem, polynomials, curve fitting, inequalities, linear programming.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C209
Fundamental Mathematics II (3 credits)

Prerequisite: MATH C206, or equivalent. This course is intended primarily for pre-Commerce students. Limits, differentiation of rational, exponential, and logarithmic functions, theory of maxima and minima, integration.

NOTE: Students who have received credits for MATH C203 or equivalent may not take this course for credits.

Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C210
Mathematics for the Biological Sciences I
(3 credits)

Prerequisite: CEGEP Mathematics 103, or equivalent. Discrete probability, probability distributions, difference equations, differential equations, transients, steady-state solutions,

system concept, block diagrams, linear programming, game theory. Markov chains, applications to ecology, population models, physiology.

MATHEMATICS C211
Fundamental Mathematics III (3 credits)
Prerequisite: MATH C209, or equivalent. This course is intended primarily for pre-Commerce students. Operations on matrices, determinants; system of linear equations, rank, inverse matrix, characteristic values. Functions of two variables, partial derivatives, maxima and minima, iterated integrals; difference and differential equations. This course was first offered in 1979-80.
NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

MATHEMATICS C215
Ideas in Mathematics I (3 credits)
A course for students registered in a programme other than one leading to the B.Sc. degree. The course endeavours to reveal the extent and power of mathematics and to give some insight into its historical development. The topics chosen will be presented in a way that requires a minimal mathematics background. This course has no formal prerequisites and does not serve as a prerequisite for any other course in Mathematics. Students should consult with the Department before registering for this course.

MATHEMATICS C216
Ideas in Mathematics II (3 credits)
A course for students registered in a programme other than one leading to the B.Sc. Degree. The course objectives are identical to those of MATH C215, but different topics are covered. This course has no formal prerequisites and does not serve as a prerequisite for any other course in Mathematics. Students should consult with the Department before registering for this course.

MATHEMATICS C220
Mathematical Methods in Chemistry
(3 credits)
Prerequisite: CEGEP Mathematics 203, or equivalent. Partial derivatives. First-order differential equations (first- and second-order chemical reactions). Hermite, Laguerre, and Legendre equations. Solutions by power series. Eigen-functions and eigenvalues, Sturm-Liouville Theory.

MATHEMATICS C225
Introduction to Actuarial Mathematics
(3 credits)
Prerequisite: MATH C202 or C208; MATH C203 or C209 or equivalent. Simple-interest, compound interest, force of interest; annuities-certain, continuous annuities-certain, perpetuities; ammortization and sinking funds, graduated mortgage schemes; bonds and related securities; capital cost and depletion. Brief introduction to life insurance.

MATHEMATICS C229
Workshop in Actuarial Mathematics I
(2 credits)
Prerequisite: MATH C261, C281 previously or concurrently or permission of the Department. This workshop is intended to prepare students for the General Mathematics Examination of the Society of Actuaries and the Casualty Actuarial Society. Special topics from calculus, introductory real analysis, and linear algebra which are not normally included in first courses are covered with the instructor. Students will work in small groups on problems taken from sample examinations of the Society and other sources.

MATHEMATICS C231
Introduction to Applied Mathematics
(3 credits)
Prerequisite: MATH C281, previously or concurrently. Introduction to the theory of optimization, linear programming, the Simplex Method. Deterministic and stochastic models for growth processes. Introduction to graphs and networks. Applications.
NOTE: Only 3 credits will be awarded from MATH C231, QUAN C313, ENGR C412.

MATHEMATICS C232
Computing in Mathematics (3 credits)
Prerequisite: CEGEP Mathematics 105 and 203 or MATH C204 and C205 or equivalent. Introduction to APL, primitive and dyadic operators, simple and mixed functions. Programming and editing, dealing with workspaces. Applications to calculus (sequences, series, convergence and integrals), to statistics (simulations, combinatorics and distributions) and to algebra (systems of equations, matrices and non-linear equations).

MATHEMATICS C241
Introduction to Statistics (6 credits)
Prerequisite: CEGEP Mathematics 203, or equivalent. Fundamental concepts of probability, probability distribution, sample statistics, estimation of parameters, test of hypotheses, regression and correlation. *NOTE See §200.7*

MATHEMATICS C261
Advanced Calculus (6 credits)
Prerequisite: CEGEP Mathematics 105, 203, or equivalent. Functions of several variables, partial derivatives, maxima and minima, vector functions, multiple integrals, line and surface integrals and related topics.

MATHEMATICS C271
Differential Equations I (3 credits)
Prerequisite: CEGEP Mathematics 105, 203. Separable equations, exact equations, integrating factors, force fields, first-order linear equations, input-output concept, second-order equations, reduction of order, variation of parameters, nth-order linear equations with constant coefficients, Laplace transforms, block diagrams and signal-flow graphs.

MATHEMATICS C281
Linear Algebra I (6 credits)
Prerequisite: CEGEP Mathematics 105, or permission of the Department. The theory of matrices as related to the solution of linear equations, matrices as an algebraic system, orthogonality and application to linear differential equations, linear inequalities and maximization problems, vector spaces.

MATHEMATICS C290
Algebraic Systems (Introduction)
(3 credits)
Prerequisite: Collegial pre-Science Mathematics profile or equivalent. Sets, functions, binary operations, examples of number systems, polynomial functions, divisibility, definitions and examples of groups and subgroups, fields.

MATHEMATICS C300
Mathematics for Elementary School Teachers I (6 credits)

This course and the following course (C301) are designed to cover the main mathematical topics in the programme-cadre for elementary schools. In both courses, the study of the mathematical content will be linked to thorough consideration of classroom applications. A project will be included among the assignments in both courses. In both courses, the mathematical language of sets, relations, functions, and operations will be applied where appropriate, and various modes of graphical representation used. Counting numbers and systems of numeration, number operations, factors and multiples, numbers as measures, classification and properties of geometrical shapes.

NOTE: This course is available only to practising teachers.

MATHEMATICS C301
Mathematics for Elementary School Teachers II (6 credits)

This course and the preceding course (C300) are designed to cover the main mathematical topics in the programme-cadre for elementary schools. In both courses, the study of the mathematical content will be linked to thorough consideration of classroom application. A project will be included among the assignments in both courses. In both courses, the mathematical language of sets, relations, functions, and operations will be applied where appropriate, and various modes of graphical representation used.

The extension of the number system to fractions, decimals, and signed numbers. Equalities and inequalities, bases of symmetry and geometric transformations.

NOTE: This course is available only to practising teachers.

MATHEMATICS C302
Transformation Geometry (6 credits)

Prerequisite: MATH C301 or permission of the Department. A more advanced study of symmetry and geometric transformations, applications in 2 and 3 dimensions, an overview of a K-6 programme of geometry.

NOTE: This course is available only to practising teachers.

MATHEMATICS C303
Measurement (6 credits)

Prerequisite: MATH C300 or permission of the Department. A more advanced study of measures and measurement, descriptive statistics, and elementary notions of probability, an overview of a K-6 programme of measurement.

NOTE: This course is available only to practising teachers.

MATHEMATICS C304
Advanced Topics in Elementary Mathematics (6 credits)

Prerequisite: Permission of the Department. Topics will be scheduled to meet more advanced mathematical needs of students, especially in the light of potential developments in the elementary school curriculum.

NOTE: This course is available only to practising teachers.

MATHEMATICS C305
Psychology of Mathematics Education (6 credits)

Prerequisite: Any three chosen from MATH C300, C301, C302, C303, C304; or permission of the Department. The content of the course will be selected from those areas of psychological theory and research which have implications for the teaching of mathematics. It will normally include: psychological theories of cognition, studies of mathematical learning in children, motivation, applications of research to the classroom.

NOTE: This course is available only to practising teachers.

MATHEMATICS C307
Selected Topics in Mathematics I (3 credits)

Prerequisite: Permission of the Department. Topics will be chosen to take advantage of competencies and interests of the instructor as well as of the students.

NOTE: This course is available only to practising teachers.

MATHEMATICS C309
Selected Topics in Mathematics II (3 credits)

Prerequisite: Permission of the Department. Topics will be chosen to take advantage of competencies and interests of the instructor as well as of the student.

NOTE: This course is available only to practising teachers.

MATHEMATICS C310
Mathematics for the Biological Sciences II (3 credits)

Prerequisite: MATH C210, or equivalent. Continuous probability, stochastic processes, population models, systems of linear difference and differential equations, Laplace transforms, signal-flow graphs, systems trajectories, stability, applications to ecology and biology.

MATHEMATICS C311
An Introduction to Numerical Analysis (3 credits)

Prerequisite: CEGEP Mathematics 105 and 203 or MATH C204 and C205 or equivalent and MATH C232 or COMP C211 or equivalent. Error analysis and computer arithmetic. Numerical methods for solving linear systems, Gaussian elimination, LU decomposition. Numerical solution of non-linear equations, fixed point iterations, rate of convergence. Interpolations and approximations, Lagrange polynomials, divided differences, discrete least-square approximation, Legendre polynomials. Numerical integration, Newton-Cotes formulas, Romberg integration.

MATHEMATICS C312
Numerical Analysis (3 credits)

Prerequisite: MATH C311 or COMP C361 or equivalent, MATH C261 and MATH C281 or equivalent. Linear Systems: Cholesky decomposition for positive definite systems; tridiagonal case. Orthogonal factorizations: Householder matrices, least-square solutions for overdetermined systems. Data fitting: piecewise, splines, continuous least-squares. Quadrature: infinite intervals, orthogonal polynomials, Gaussian quadrature. Differential equations: systems of ODE's, predictor-corrector formula, stability, error analysis. Eigenvalue problem: Bisection, deflation, tridiagonalization, inverse iteration.

MATHEMATICS C322
Mathematical Logic (3 credits)

Prerequisite: 18 credits in post-Collegial

Mathematics. This course deals with the mathematical ideas and techniques required to state and prove one of the most spectacular theorems of modern mathematics: Godel's incompleteness theorem establishing the non-algorithmic nature of Arithmetic and, hence, of most of higher mathematics. The subject involves the study of formal languages and recursive functions and is suitable for students interested in computer science.

MATHEMATICS C325
Introduction to Life Contingencies
(6 credits)
Prerequisite: CEGEP pre-Science mathematics profile or equivalent; MATH C225. Measurement of mortality: the survival function, mortality tables, force of mortality. Life annuities: pure endowments, annual payments, continuous annuities, net annual premiums, net level premium reserves. The expense factor; special topics.

MATHEMATICS C329
Workshop in Actuarial Mathematics II
(2 credits)
Prerequisite: MATH C241; MATH C311 and C345 previously or concurrently, or permission of the Department. This workshop is intended to prepare students for the Society's Examination 2 (Probability and Statistics) and 3(a) (Numerical Methods). Students will work with an instructor on special topics required for these examinations and not covered in other courses of the programme, such as Markov chains, finite differences, and difference equations. Instruction will be supplemented by regular problem sessions on the entire contents of the examinations.

MATHEMATICS C331
Deterministic Methods of Operations Research (6 credits)
Prerequisite: MATH C231 or permission of the Department. Linear programming, simplex method, revised simplex, duality, dual simplex, method, convex set, convex functions, post-optimal analysis, transportation problem, networks. Lagrange multipliers, Kuhn-Tucker conditions, search methods, quadratic programming, gradient techniques.

MATHEMATICS C332
Introduction to Game Theory (3 credits)
Prerequisite: 18 credits in post-Collegial Mathematics. Matrix games. Strategies. Optimum stategies and the value of a game. Strictly determined games, Non-strictly determined games and linear programming. Applications. Further material according to interest of instructor and students.

MATHEMATICS C342
Quality Control and Industrial Statistics
(3 credits)
Prerequisite: MATH C241 or permission of the Department. Concepts of statistical control; X, R, P, and C charts; acceptance-sampling inspection, continuous-sampling plans, reliability and life tests.

MATHEMATICS C343
Sample Surveys (3 credits)
Prerequisite: MATH C241 or permission of the Department. Simple random sampling, stratified random sampling, systematic sampling, multi-stage sampling, regression and ratio estimates, non-sampling errors.

MATHEMATICS C344
Regression and Analysis of Variance
(6 credits)
Prerequisite: MATH C241, C281 or permission of the Department. Simple, multiple, and polynomial regression, analysis of variance and covariance, multiple comparison, computer packages.

MATHEMATICS C345
Mathematical Statistics (6 credits)
Prerequisite: MATH C241, C261. Probability, random variable in one or more dimensions, point distributions and transformations, order statistics, sequential hypothesis testing, Bayesian methods, computer simulation of random variables.

MATHEMATICS C347
Non-Parametric Statistical Methods
(3 credits)
Prerequisite: MATH C241. Chi-square and Kolmogorov-Smirnov Goodness-of-Fit tests, the sign, rank, and Mann-Whitney Wilcox tests for one and two samples, Kruskal-Wallis tests for k-samples, rank correlation and Kendall's TAU statistics, computer packages.

MATHEMATICS C351
Concepts of Probability (3 credits)
Prerequisite: MATH C241. Axiomatic approach to probability, combinatorial probability, discrete and continuous random variables, geometric probability, expectation, conditional probability and conditional expectations, introduction to Markov chains and the Poisson process.

MATHEMATICS C353
Stochastic Processes and Applications
(3 credits)
Prerequisite: MATH C351. Continuous stochastic processes. Poisson processes, continuous-time Markov processes, queuing models, birth and death processes, renewal theory and reliability of systems.

MATHEMATICS C362
Introduction to Analysis I (3 credits)
Prerequisite: MATH C261 and C281. Real-number system, cardinality, least upper bounds, limits, sequences, series, properties of continuous functions.

MATHEMATICS C363
Introduction to Analysis II (3 credits)
Prerequisite: MATH C362. Riemann integration, fundamental theorem of calculus, sequences and series of functions, uniform convergence, functions of bounded variation; Riemann-Stieltjes integration.

MATHEMATICS C366
Complex Analysis I (3 credits)
Prerequisite: MATH C261. Algebra and geometry of complex numbers, linear transformations, analytic functions, Laurent's series, calculus of residues, special functions.

MATHEMATICS C371
Differential Equations II (3 credits)
Prerequisite: MATH C271. Numerical methods for ordinary differential equations, relation-to-existence theorem, solution-in-power series. Partial differential equations, separation of variables, Fourier series, diffusion equation, wave equation, Laplace's equation, Schrodinger's equation. Separation of variables leading to further applications of power-

series method. Physical illustrations and problems.

MATHEMATICS C373
Qualitative Theory of Differential Equations (3 credits)
Prerequisite: MATH C271. Systems of linear differential equations. Fundamental matrices. Nonhomogeneous linear systems. Nonlinear systems. Solutions and trajectories. The phase plane. Stability concepts. Liapunov's second method. Periodic solutions and limit cycles. Introduction to Boundary-value problems and Sturm-Liouville theory.

MATHEMATICS C381
Linear Algebra II (3 credits)
Prerequisite: MATH C281. Matrices, linear transformations, determinants, metric concepts, inner-product spaces, dual spaces, spectral theorem, bilinear and quadratic forms, canonical forms for linear transformations, matrix functions, selected topics.

MATHEMATICS C382
Geometry (3 credits)
Prerequisite: MATH C261, C281. An introduction to a number of geometries both from the historical point of view and in terms of groups of transformations. Particular topics may include Euclidean, projective, or hyperbolic geometry.

MATHEMATICS C392
Elementary Number Theory (3 credits)
Prerequisite: 18 credits in post-Collegial Mathematics. Number systems, division and factorization, number-theoretic functions, congruences, algebraic congruences and primitive roots, quadratic residues, diophantine equations.

MATHEMATICS C393
Algebraic Systems I (3 credits)
Prerequisite: 12 credits in post-Collegial Mathematics, or permission of the Department. Introduction to algebraic systems: groups, rings, fields, homomorphisms.

MATHEMATICS C394
Algebraic Systems II (3 credits)
Prerequisite: MATH C393, or equivalent. Normal subgroups, quotient groups, iso-morphism theorems, polynomial rings, principal ideal rings, elementary field theory.

MATHEMATICS C395
Selected Topics in Mathematics (3 credits)
Prerequisite: Permission of the Department.

MATHEMATICS C397
History of Mathematics (3 credits)
Prerequisite: MATH C261, C281, or permission of the Department. Early mathematics, Greek mathematics, European mathematics in the Middle Ages, the origin and development of analytic geometry and calculus, mathematics as free creation, the generality of mathematics in the twentieth century.

MATHEMATICS C400
Seminar on the Teaching of Mathematics (3 credits)
Prerequisite: Permission of the Department. This course is conducted in the form of a workshop and examines alternative methods of presentation of mathematical ideas at the secondary school level. It studies relevant aspects of the psychological development of the adolescent in the context of existing mathematics curricula.
NOTE: This course should be taken at the end of the programme and is available to practising teachers only.

MATHEMATICS C401
Functions (6 credits)
Prerequisite: Permission of the Department. This course examines the topics in a traditional functions course: the concept of a function and its inverse. Linear and quadratic functions, rational functions, exponential, logarithmic, and trigonometric functions. Graphing is stressed. An historical overview is given. Methods of teaching these topics and of preparing secondary school students for a functions course are discussed.
NOTE: This course is available to practising teachers only.

MATHEMATICS C402
Algebra I (3 credits)
Prerequisite: MATH C401 or equivalent previously or concurrently. Progressions, combinations, permutations, Bionomial Theorem, mathematical induction, inequalities, polynomials, cartesian and polar forms of complex numbers; conics.
NOTE: This course is available to practising teachers only.

MATHEMATICS C403
Calculus I (3 credits)
Prerequisite: MATH C401, or equivalent. Functional notation, limits, and continuity. Differentiation of polynomials. The power, product, quotient, and chain rules. Implicit differentiation. Higher derivatives. Mean value theorem, Rolles theorem. Maxima and minima. Applications: tangents to plane curves, related rates. The differential, use in finding approximations. Indefinite and definite integrals, areas and volumes.
NOTE: This course is available to practising teachers only.

MATHEMATICS C404
Geometry for Teachers (6 credits)
Prerequisite: MATH C401 or equivalent. Certain fundamentals of Cartesian, vector and transformation geometry. Distance preceiving motions in the plane, affine transformations with applications in Euclidean geometry. Projective transformations and applications to conics. Applications of these methods to topics presented as informal geometry in grades 7-10.
NOTE: This course is available to practising teachers only.

MATHEMATICS C405
Calculus II (3 credits)
Prerequisite: MATH C403. Differentiation and integration of trigonometric functions. Derivatives of inverse trigonometric functions, logarithmic functions, and exponential functions. Methods of integration by parts, by substitution, by separation into partial fractions. Improper integrals, L'Hopital's Rule. Series: Convergence tests, Maclaurin and Taylor Theorems.
NOTE: This course is available to practising teachers only.

MATHEMATICS C406
Algebra II (3 credits)
Prerequisite: MATH C401, or equivalent. Systems of equations, determinants, Cramer's rule. Matrices, operations on matrices,

the inverse matrix. Gauss-Jordan method. Matrix transformations. Linear programming.

NOTE: This course is available to practising teachers only.

MATHEMATICS C408
Topics in Geometry (3 credits)

Prerequisite: MATH C401 or equivalent and permission of the Department. Topics will be chosen to meet more advanced mathematical or professional needs of students in the light of potential developments in the geometry curriculum at the junior secondary school.

NOTE: This course is available to practising teachers only.

MATHEMATICS C409
Computational Mathematics (3 credits)

Prerequisite: MATH C401, or equivalent. Introduction to the computer and to the writing of simple programmes in BASIC. The use of pocket calculators as pedagogic devices. Approximately one-third of the course will be spent on problems related to the secondary school curriculum which can be solved by computer or calculator.

NOTE: This course is available to practising teachers only.

MATHEMATICS C410
Curriculum Seminar (3 credits)

Prerequisite: Permission of the Department. Conducted in the form of a workshop. Examines arithmetic, algebraic, and geometric aspects of the mathematics curricula, grades 7 - 11. Critical examination of various textbooks and pedagogic approaches used in the schools.

NOTE: This course is available to practising teachers only.

MATHEMATICS C411
Topics in Probability and Statistics (3 credits)

Prerequisite: MATH C401 or equivalent. Elementary probability, permutations and combinations, binomial and normal distribution. Analysis and organization of statistical data. Tests of hypotheses. Confidence limits. Introduction into linear regression and correlations. Lectures and laboratory.

NOTE: This course is available to practising teachers only. Students who have received credit for MATH C407 may not take this course for credits.

MATHEMATICS C417
Topics in Mathematics Education I (3 credits)

Prerequisite: Permission of the Department. Topics will be chosen to take advantage of faculty and students' interest in areas related to psychology and research on learning mathematics, exceptional children, diagnosis and remediation.

NOTE: This course is available to practising teachers only.

MATHEMATICS C419
Topics in Mathematics Education II (3 credits)

Prerequisite: Permission of the Department. Topics will be chosen to take advantage of faculty and students' interest in areas related to psychology and research on teaching, curriculum analysis, applications of mathematics.

NOTE: This course is available to practising teachers only.

MATHEMATICS C425
Topics in Contingency Theory, Risk Theory and Mortality (6 credits)

Prerequisite: MATH C325 or permission of the Department. Topics will vary from year to year, but will be chosen from the following: Applications of contingency theory in areas of life and health insurance, annuities and pensions; individual risk theory including Rosenthal's approximation, ruin theory, stop-loss reinsurance; fundamental assumptions underlying exposure formulas, interim schedules, King's method. Mathematics of graduation of mortality tables, measures of mortality, construction of life tables from population statistics.

MATHEMATICS C429
Workshop in Actuarial Mathematics III (2 credits)

Prerequisite: MATH C325, C331; MATH C431 previously or concurrently, or permission of the Department. This workshop will review, consolidate, and supplement the material from MATH C231, C331, and C431 required for the Society's Examination 3(b) (Operations Research) and the topics in MATH C225 and C325 needed for Examination 4 (Theory of Interest and Introduction to Life Contingencies). Students will be required to participate in the organization and presentation of material.

MATHEMATICS C431
Probabilistic Methods of Operations Research (6 credits)

Prerequisite: MATH C331. Difference and differential-difference equations, z transforms, stochastic distributions. Markov chains, queuing theory, inventory theory, reliability and renewal theory, competition and introduction to decision theory, dynamic programming, simulation and Monte Carlo techniques; formulation, testing and stability of mathematical models incorporating uncertainty.

MATHEMATICS C432
Theory of Graphs and Networks (3 credits)

Prerequisite: Permission of the Department. Directed and undirected graphs. Partitions, planar graphs, matrix representation, applications to network theory.

MATHEMATICS C433
Calculus of Variations (3 credits)

Prerequisite: MATH C373. Nature of problems, Weak variations, the first variation, Euler's equation. The second variation, Jacobi's equation, Legendre's test, conjugate points. Relative maxima and minima, isoperimetrical problems. Integrals with variable end points. Applications to problems in pure and applied mathematics; the principle of least action. Strong variations, the Weierstrass E-function.

MATHEMATICS C435
Topics in Numerical Analysis (3 credits)

Prerequisite: MATH C311, C312, or equivalent. Advanced problems and techniques in numerical linear algebra, systems of nonlinear equations, roots of polynomials, spline fitting, mini-max fitting, extrapolation techniques, solution of initial value ordinary differential equations, solution of two-point boundary value problems in ordinary differential equations, elliptic partial differential equations, finite difference and finite element methods for hyperbolic and parabolic partial differential equations.

MATHEMATICS C445
Topics in Statistics (3 credits)
Prerequisite: MATH C345 and C351. Topics such as sequential procedures, multivariate analysis, time series, reliability, advanced design of experiments, advanced topics in estimation, and hypothesis testing.
NOTE: With permission of the Department, students will be allowed to repeat this course as MATH C446.

MATHEMATICS C446
Topics in Statistics (3 credits)
Prerequisite: MATH C445. Additional topics as in MATH C445.
NOTE: Students who have taken MATH C445 may register for this course with permission of the Department.

MATHEMATICS C451
Topics in Probability (3 credits)
Prerequisite: MATH C351. Topics in Markov Chains, occupancy and matching problems, characteristic functions and moment-generating functions, central limits theorem and weak law of large numbers, probability generating functions and applications to combinatorial problems, random walk and the reflection principle, branching processes.

MATHEMATICS C461
Analysis (6 credits)
Prerequisite: MATH C362, C363. Metric spaces, completeness, fixed-point theorems, Baire's theorem, function spaces, Ascoli-Arzela theorem, Stone-Weierstrass theorem, C(0,1). Measure and Lebesgue integration on the real line, convergence theorems, absolute continuity and completeness of L(0,1).

MATHEMATICS C466
Complex Analysis II (3 credits)
Prerequisite: MATH C363, C366. Cauchy's theorem, singularities, maximum modules principle, uniqueness theorem, normal families, Riemann mapping theorem.

MATHEMATICS C471
Partial Differential Equations (3 credits)
Prerequisite: MATH C371 or C373. Classification of partial differential equations, the Cauchy-Kowalewski theorem, characteristics, boundary value and eigenvalue problems for elliptic equations, initial value and initial boundary value problems for parabolic and hyperbolic equations.

MATHEMATICS C472
Linear Systems (3 credits)
Prerequisite: MATH C281, C371, or C373. State-space analysis and design of continuous and discrete systems. Controllability and observability, modal control, pole-displacement techniques. Luenberger observers, Liapunov stability.

MATHEMATICS C473
Stability Theory of Differential Equations (3 credits)
Prerequisite: MATH C373. Existence and uniqueness of solutions of nonlinear differential equations. Properties of solutions. Linear systems. Asymptotic behaviour of linear systems. Stability in nonlinear systems. Linearization. Liapunov functions. Two dimensional systems. Limit cycles.

MATHEMATICS C474
Introduction to Mathematical Control Theory (3 credits)
Prerequisite: MATH C363, C472. Linear control systems. Attainable sets; compactness, convexity, continuity in time. Controllability and observability. Time optimal control. Maximum principle. Examples of physical systems. Switching curves. Optimal control with quadratic cost.

MATHEMATICS C475
Topology (3 credits)
Prerequisite: MATH C362, or equivalent. An introduction to fundamental ideas in topology. Topics will be chosen from general topology and combinational or algebraic topology. These may include compactness and connectedness, topological equivalence, winding number of a curve, Euler characteristic and classification of surfaces.

MATHEMATICS C491
Abstract Algebra I (3 credits)
Prerequisite: MATH C394, or equivalent. Sylow theorems, composition series, ideal theory of rings, noetherian rings, modules.

MATHEMATICS C492
Abstract Algebra II (3 credits)
Prerequisite: MATH C491, or equivalent. Elements of field and Galois theory, including ruler-and-compass construction and the unsolvability of equations of fifth degree.

MATHEMATICS C495
Advanced Topics in Mathematics (3 credits)
Prerequisite: Permission of the Department.

MATHEMATICS C499
Mathematical Thinking (3 credits)
Prerequisite: Permission of the Department. This course is intended to stimulate the student's mathematical creativity and to improve his ability to think systematically, analyze problems, and communicate his reasoning. Students participate actively in discussing and solving problems drawn from a variety of sources (including previous Putnam competitions) and are expected to explain their thinking both orally and in writing. Discussions include the following topics: problem posing, Polya's techniques of problem solving; equivalence and similarity of problems; generalization; applications. The problems are selected from: combinatorics, geometry, group theory, number theory, real analysis, etc.

31.210 Modern Languages and Linguistics

Chairman
H. FAMIRA, *Associate Professor of German*

Professor
C. FONDA *(Linguistics)*

Associate Professors
F. ANTOLIN *(Spanish)*
C.R. BARTON *(Classics and Linguistics)*
A. COSTANZO *(Italian)*
J.D. GRAYSON *(Spanish and Linguistics)*
A.M. KETTER *(German)*
J.A. MACALUSO *(Spanish and Italian, Supervisor of Hebrew)*
H. SCHEER *(German and Linguistics)*
A.T. SIDOROW *(Russian)*

Assistant Professor
I.G. EHMER *(German)*

Post-Retirement Associate Professor
C. DIMICHELE *(Italian)*

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in German, Italian, or Spanish
A student entering any of these programmes with no previous knowledge in the field would take the following sequence of courses in German, Italian, or Spanish. Students must consult with the Department prior to selecting their courses.

Year I
18 GERM (or ITAL or SPAN) C210^6, C220^6, C235^6

Year II
12 GERM (ITAL or SPAN) C250^6, C255^6
6 LING C200^6

Year III
12 GERM (ITAL or SPAN) C300^6, C305^6
12 credits (in the language studied) at the 400 level in a sequence approved by the Department. Certain 300-level courses may be substituted with prior approval of the Department.

NOTE: Students in the Honours in Italian programme may register for HIST C346^6: History of Modern Italy, with permission of the Department.

For students with previous knowledge in the field, the programme will be established in consultation with the Department.

72 BA Joint Honours in one of the Modern Languages and in English
See Section 31.004

60 BA Joint Specialization in one of the Modern Languages and in English
See Section 31.004

72 BA Joint Honours in one of the Modern Languages and in French
See Section 31.004

42 BA Major in German, Italian, or Spanish
A student entering any of these programmes with no previous knowledge in the field would take the following sequence of courses in German, Italian, or Spanish. Students must consult with the Department prior to selecting their courses.

Year I
12 *Chosen from GERM (or ITAL or SPAN) C210^6, C220^6, C235^6*

Year II
12 GERM (or ITAL or SPAN) C250^6, C255^6

Year III
18 credits (in the language studied) at the 300 level or higher in a sequence approved by the Department.

For students with previous knowledge in the field, the programme will be established in consultation with the Department.

30 Minor in German, Hebrew, Italian, or Spanish
A student entering any of these programmes with no previous knowledge in the field would take the following sequence of courses in German, Hebrew, Italian, or Spanish. Students must consult with the Department prior to selecting their courses.

Year I
12 Chosen from GERM (or HEBR*, or ITAL, or SPAN) C210^6, C220^6, C235^6
**Students in Hebrew must select 6 credits in consultation with the Department.*

Year II
12 GERM (or HEBR*, or ITAL, or SPAN) C250^6 and C255^6
**Students in Hebrew must select 6 credits in consultation with the Department.*

Year III
6 credits (in the language studied) at the 300 level or higher in a sequence approved by the Department.

For students with previous knowledge in the field, the programme will be established in consultation with the Department.

30 **Minor in Russian**
Students following a programme in Russian must establish the course sequence in consultation with the Department.
30 RUSS credits chosen with prior approval of the Department.

LINGUISTICS

The Department offers an Honours, a Major, and a Minor programme in Linguistics.

60 **BA Honours in Linguistics**
A student entering an Honours programme in Linguistics will normally take the following courses:
6 LING C200[6]
6 LING C410[3], C411[3]
12 LING C320[3], C321[3], C372[3], C373[3]
12 LING credits chosen at the '300' level
6 Chosen from LING C421[6], C431[6]
6 LING credits chosen at the '400' level
12 credits in Linguistics or 12 credits chosen in consultation with the Department in one of the following: Latin, Greek, Hebrew, Russian, German, Spanish, Italian, French, English, Sociology, Philosophy, Psychology, Arabic, Portuguese

42 **BA Major in Linguistics**
6 LING C200[6]
12 LING C372[3], C373[3], C410[3], C411[3]
18 LING credits chosen at the '300' and '400' level, in consultation with the Department
6 Elective LING or 6 credits chosen in consultation with the Department

30 **BA Minor in Linguistics**
6 LING C200[6]
24 credits in Linguistics

Students seeking admission to Honours programmes on or after June 1, 1977, are bound by the Honours requirements outlined in §16.2.4 of this Calendar. Students who already had Honours status by June 1, 1977, will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

NOTE: "A/B" and "B" 200-level courses. The second-term content of 6-credit language courses designated "A/B" is identical to that of 3-credit courses, with the same title, labelled "B". The "A/B" courses are designed to permit less advanced students to reach the level of students taking only the "B" course. Students in "A/B" courses may not withdraw after completing the fall term and receive credit.

Written work may be required in the language being studied for these courses; please consult with the Department.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

Arabic:

ARABIC C451
Literary Arabic (6 credits)
Prerequisite: LING C200, or permission of the Department. This course is designed to give the student in one year a thorough understanding of modern literary Arabic through linguistic analysis of its structure.

German:

GERMAN C210
Introductory Course in German A/B
(6 credits)
Prerequisite: Permission of the Department. A beginners' course in the German language, designed to make the student conversant with the grammar, pronunciation, and ordinary vocabulary. Equal emphasis placed on speaking and understanding, reading and writing. Can be taken concurrently with GERM C220 and/or GERM C235. Lectures and laboratory.

GERMAN C211
Introductory Course in German B
(3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of GERM C210. It is designed for students who have taken some German at the CEGEP level, or equivalent. Can be taken concurrently with GERM C221 and/or GERM C235. Lectures and laboratory.

GERMAN C220
Introduction to German Studies A/B
(6 credits)
Prerequisite: Permission of the Department. An introductory language course, which develops all basic skills. Emphasis on the audio-lingual approach; i.e., on speaking and understanding. May be taken concurrently with GERM C210 and/or GERM C235. Lectures and laboratory.

GERMAN C221
Introduction to German Studies B
(3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of GERM C220. It is designed for students who have taken some German at the CEGEP level, or equivalent. Can be taken concurrently with GERM C211 and/or GERM C235. Lectures and laboratory.

GERMAN C235
Translation I (6 credits)
Prerequisite: Permission of the Department. This course will give the student sufficient training to read German and to translate from German into English with reasonable competence. No previous knowledge of German required. Texts will include a variety of reading materials of current interest.
NOTE: This course alone may not be used as a prerequisite for advanced courses in German.

GERMAN C250
Intermediate German A/B (6 credits)
Prerequisite: GERM C210 or C220, or equivalent. Advanced instruction in the language. Emphasis upon idiom, and usage in conversation and composition. Readings from German authors and other texts. Lectures and laboratory.

GERMAN C251
Intermediate German B (3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of GERM C250. It is designed for students who have taken at least four semesters of German at the CEGEP level or equivalent. May be taken concurrently with GERM C255.
NOTE: Students who have credit for GERM C250 may not take this course for credits.

GERMAN C255
Translation II (6 credits)
Prerequisite: GERM C210 or C220, or equivalent. This course is a continuation of Translation I and presents more complicated problems of translation from German into English. It is also an introduction to the basic skills required to translate English into German.

GERMAN C300
Advanced Composition and Stylistics
(6 credits)
Prerequisite: GERM C250 or C255, or equivalent. This course is intended to give the student increased fluency in and a firmer command of the language. The emphasis of the course is on stylistics and composition.

GERMAN C305
Translation III (6 credits)
Prerequisite: GERM C255, or equivalent. This course is a continuation of Translation II and deals with advanced problems and techniques of translating from English into German.

GERMAN C345
(Also given as History C345)
Germany and Austria in Modern Times
(6 credits)
Socio-economic change and the development of nation-states in German Central Europe from the eighteenth century to the present. For advance reading, the student might refer to *H. Holborn, A History of Modern Germany.*

GERMAN C350
Literature in Translation (6 credits)
A study of representative works of German literature. All readings and lectures will be in English.

GERMAN C360
German Civilization (6 credits)
Prerequisite: GERM C250 or C255 or equivalent. This course is designed to acquaint the student with the intellectual and cultural history of German-speaking nations as reflected in their writers. Although it is primarily concerned with ideas and aesthetics, attention will also be given to the development of language, customs and folklore.

ALL COURSES WITH NUMBERS 400 AND HIGHER ARE CONDUCTED IN GERMAN

GERMAN C400
Survey of German Literature 800 to 1600
(6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. A survey of Old High German, Middle High German, and Early New High German literature.

GERMAN C405
German Literature from 1600 to 1750
(6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. A detailed study of representative writers of the German Baroque, Rococo, and Enlightenment periods.

GERMAN C410
Literature of the Classic Period (6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. Pre-classic and classic German literature, with its philosophical background.

GERMAN C415
Literature of the Romantic Period
(6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. Romanticism as a universal attitude. The works of the major German Romanticists and their influence.

GERMAN C420
German Literature of the Nineteenth Century (6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. A study of representative works of post-romantic authors and the writers of German Realism.

GERMAN C425
German Literature from 1880 to 1930
(6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. The development of German literature from Naturalism to the beginnings of Hitler-Germany.

GERMAN C430
Contemporary German Literature
(6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. Literature in Hitler-Germany, German emigrant literature, and post-war literature.

GERMAN C435
History of the German Drama (6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. A study of German drama from its beginnings to modern times.

GERMAN C440
A Study of the Deutsche Novelle (6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. A study of the Deutsche Novelle from Goethe to Kafka.

GERMAN C445
Reading Course in the Modern German Novel (6 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. A study of the German novel since 1900. There will be no class periods. Students will work under the direct supervision of the instructor. Regular assignments, written and oral examinations will be given.

GERMAN C450
German Poetry from the Middle Ages to Modern Times (3 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. A survey of German poetry through the centuries. Outstanding examples of representative poets will be studied in detail.

GERMAN C460
The Hörspiel (3 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. A study of one of the youngest art forms developed with the help of and for a new medium - radio. Literary and technical aspects, as well as the most representative writers, will be discussed.

GERMAN C470
Study of an Individual German Author I (3 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. This course will consist of the detailed study of one important German author.

GERMAN C471
Study of an Individual German Author II (3 credits)
Prerequisite: GERM C250 or equivalent, or permission of the Department. This course will consist of the detailed study of one important German author. The subject matter of GERM C470 and GERM C471 will never be the same in any given year.

GERMAN C480
Tutorial I (3 credits)
Prerequisite: Permission of the Department. Guided readings in German language and/or literature, and at least two major assignments to meet the student's individual needs.

GERMAN C481
Tutorial II (3 credits)
Prerequisite: Permission of the Department. Guided readings in German language and/or literature. Written and oral criticism of the works studied.

GERMAN C482
Tutorial III (3 credits)
Prerequisite: Permission of the Department. Guided readings in German language and/or literature, and at least two major assignments to meet the student's individual needs.
NOTE: Students who have received credit for GERM C480 may register for GERM C482, provided the subject matter is different.

GERMAN C483
Tutorial IV (3 credits)
Prerequisite: Permission of the Department. Guided readings in German language and/or literature. Written and oral criticism of the works studied.
NOTE: Students who have received credit for GERM C481 may register for GERM C483, provided the subject matter is different.

Hebrew:

HEBREW C210
Introductory Course in Hebrew A/B (6 credits)
Prerequisite: Permission of the Department. A beginners' course in Hebrew, spoken and written, with reading of classical and modern texts. Lectures and laboratory.
NOTE: Students who have credits for CEGEP Hebrew 301 or 401, or whose schooling has been conducted in Hebrew, will not be admitted to this course.

HEBREW C211
Introductory Course in Hebrew B (3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of HEBR C210. It is designed for students who have taken some Hebrew at the CEGEP level or equivalent.

HEBREW C250
Intermediate Hebrew A/B (6 credits)
Prerequisite: HEBR C210, or two to three years of high school Hebrew or equivalent. This course consists of a complete review of Hebrew grammar and syntax, with special emphasis on modern Hebrew usage, readings in the Bible, and an introduction to modern Hebrew literature. Can be taken concurrently with HEBR C300. Lectures and laboratory.

HEBREW C251
Intermediate Hebrew B (3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of HEBR C250. It is designed for students who have taken two to three years of high school Hebrew or equivalent. Lectures and laboratory.
NOTE: Students who have received credit for HEBR C250 may not take this course for credits.

HEBREW C300
An Introduction to Biblical Hebrew (6 credits)
Prerequisite: HEBR C210 or equivalent. A study of classical Hebrew grammar. This course will give the student sufficient training to read, with reasonable competence, classical Hebrew texts, as well as the Hebrew Bible. Can be taken concurrently with HEBR C250. This course is designed especially for students in the Departments of Theological Studies and Religion.

ALL COURSES WITH NUMBERS 400 AND HIGHER ARE CONDUCTED IN HEBREW

HEBREW C400
Literature from the Talmudic Period to the Haskalah (6 credits)
Prerequisite: HEBR C250 or equivalent. Hebrew literature from Talmudic times to the Enlightenment.

HEBREW C410
Medieval Literature (The Golden Age) (6 credits)
Prerequisite: HEBR C400 or C420, or equivalent. The literature of the Hebrew Golden Age. Outstanding examples of representative writers will be studied in detail.

HEBREW C420
Modern Hebrew Literature (6 credits)
Prerequisite: HEBR C250 or equivalent. A detailed study of representative writers from the eighteenth century to the establishment of the State of Israel.

HEBREW C430
Contemporary Israeli Literature (6 credits)
Prerequisite: HEBR C250 or equivalent. A study of contemporary Israeli prose and poetry.

HEBREW C480
Tutorial I (3 credits)
Prerequisite: Permission of the Department. A course designed to meet the individ-

ual needs of advanced students. Written and oral criticism of the works studied.

HEBREW C481
Tutorial II (3 credits)
Prerequisite: Permission of the Department. A course designed to meet the individual needs of advanced students. Written and oral criticism of the works studied.
NOTE: Students who have received credit for HEBR C480 may register for HEBR C481 providing the subject matter is different.

HEBREW C482
Tutorial III (3 credits)
Prerequisite: Permission of the Department. A course designed to meet the individual needs of advanced students. Written and oral criticism of the works studied.
NOTE: Students who have received credit for HEBR C480 may register for HEBR C482, provided the subject matter is different.

HEBREW C483
Tutorial IV (3 credits)
Prerequisite: Permission of the Department. A course designed to meet the individual needs of advanced students. Written and oral criticism of the works studied.
NOTE: Students who have received credit for HEBR C481 may register for HEBR C483, provided the subject matter is different.

Italian:

ITALIAN C210
Introductory Course in Italian A/B
(6 credits)
Prerequisite: Permission of the Department. A beginners' course in the Italian language, designed to make the student conversant with the grammar, pronunciation, and ordinary vocabulary. Equal emphasis is placed on speaking and understanding, reading and writing. May be taken concurrently with ITAL C220. Lectures and laboratory.

ITALIAN C211
Introductory Course in Italian B (3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of ITAL C210. It is designed for students who have taken some Italian at the CEGEP level, or equivalent. May be taken concurrently with ITAL C221. Lectures and laboratory.

ITALIAN C220
Introduction to Italian Studies A/B
(6 credits)
Prerequisite: Permission of the Department. An introductory language course that develops all basic skills. Audio-visual and audio-lingual techniques are emphasized. May be taken concurrently with ITAL C210. Lectures and laboratory.

ITALIAN C221
Introduction to Italian Studies B (3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of ITAL C220. It is designed for students who have taken some Italian at the CEGEP level or equivalent. May be taken concurrently with ITAL C211. Lectures and laboratory.

ITALIAN C235
Translation I (6 credits)
Prerequisite: Permission of the Department. This course will give the student sufficient training to read Italian and to translate from Italian into English with reasonable competence. No previous knowledge of Italian is required. Texts will include a variety of reading material of current interest.
NOTE: This course alone may not be used as a prerequisite to advanced courses in Italian.

ITALIAN C250
Intermediate Italian A/B (6 credits)
Prerequisite: ITAL C210 or C220, or equivalent. Advanced instruction in the language. Emphasis upon idiom and usage in conversation and composition. Readings from Italian authors and other texts. Lectures and laboratory.

ITALIAN C251
Intermediate Italian B (3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of ITAL C250. It is designed for students who have taken at least four semesters of Italian at the CEGEP level or equivalent.
NOTE: Students who have credit for ITAL C250 may not take this course for credits.

ITALIAN C255
Translation II (6 credits)
Prerequisite: ITAL C210 or C220, or equivalent. This course presents problems of translation from Italian into English and from English into Italian.

ITALIAN C270
Italian for Commerce and Administration
(3 credits)
Prerequisite: ITAL C210 or equivalent. This course is intended for students in Commerce and in Business Administration. Emphasis on Commerce terminology and the language of business.

ITALIAN C300
Advanced Composition and Stylistics
(6 credits)
Prerequisite: ITAL C250 or C255, or equivalent. This course is intended to give the student increased fluency in and a firmer command of the language. The emphasis of the course is on stylistics and composition.

ITALIAN C305
Translation III (6 credits)
Prerequisite: ITAL C255 or equivalent. This course is a continuation of Translation II and deals with advanced problems and techniques of translation from Italian into English and from English into Italian.

ITALIAN C350
Literature in Translation (6 credits)
A study of representative works of Italian literature. All readings and lectures will be in English.

ITALIAN C360
Italian Civilization (6 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A survey of Italy's cultural and scientific achievements. Attention will be given to Italy's social, political, and economic life.

ALL COURSES NUMBERED 400 AND HIGHER ARE CONDUCTED IN ITALIAN.

ITALIAN C400
Italian Literature to 1600 (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A survey of Italian literature of the

Middle Ages and Renaissance. Lectures: 3 hours per week.

ITALIAN C401
Italian Literature after 1600 (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A survey of literary and cultural trends from 1600 to the present. Lectures: 3 hours per week.

ITALIAN C405
Italian Theatre to 1800 (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. Origin and evolution of the Italian theatre. Emphasis on Goldoni and the *Commedia dell'arte;* Alfieri and tragedy. Lectures: 3 hours per week.

ITALIAN C406
Modern Italian Theatre (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of representative theatrical works of the nineteenth and twentieth centuries. Particular attention will be given to the innovative theatre of Pirandello. Lectures: 3 hours per week.

ITALIAN C410
Literary Criticism (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A survey of literary criticism from the Renaissance to the present. Readings from the critical works of Vico, Foscolo and De Sanctis, Croce. Critical theories and trends of modern Italian criticism. Lectures: 3 hours per week.

ITALIAN C415
Dante (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of Dante's minor works. Introduction to the *Divina commedia.* Lectures: 3 hours per week.

ITALIAN C416
"Divina commedia" (3 credits)
Prerequisite: ITAL C415 or permission of the Department. Analysis of the *Divina commedia.* Lectures: 3 hours per week.

ITALIAN C420
Petrarch and Early Italian Poetry (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of poetic works from the poets of the *Scuola siciliana* and the *Dolce stil nuovo.* Emphasis on Petrarch's *Canzoniere.* Lectures: 3 hours per week.

ITALIAN C421
Boccaccio and the Novella (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. Origin and evolution of the early Italian novella. Emphasis on the *Decameron.* Lectures: 3 hours per week.

ITALIAN C425
Fifteenth-Century Prose and Poetry (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. The rise of Humanism in Italy. A study of representative prose writings of fifteenth-century authors, and a study of the epic and lyric poetry of the fifteenth century: chivalresque poetry in Italy, the lyric poetry of Poliziano and Lorenzo de' Medici. Lectures: 3 hours per week.

ITALIAN C430
The Italian Renaissance (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of the Italian Renaissance, with emphasis on Machiavelli's *Principe* and *La mandragola.* Lectures: 3 hours per week.

ITALIAN C431
Ariosto and Tasso (3 credits)
Prerequisite: Italian C250 or C255, or equivalent. A study of *Orlando Furioso* and *La Gerusalemme liberata.* Lectures: 3 hours per week.

ITALIAN C435
Seventeenth- and Eighteenth-Century Prose (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of representative scientific, philosophic, and literary texts. Emphasis on Galileo, Vico, Goldoni, and Alfieri. Lectures: 3 hours per week.

ITALIAN C436
Seventeenth- and Eighteenth-Century Poetry (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of representative poetry of the Baroque and the Enlightenment. Emphasis on Marino, Parini, and Alfieri. Lectures: 3 hours per week.

ITALIAN C440
Nineteenth-Century Novel (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of different approaches to the novel by Italian writers of the nineteenth century. Emphasis on Manzoni and Verga. Lectures: 3 hours per week.

ITALIAN C441
Nineteenth-Century Poetry (3 credits)
Prerequisite: ITAL C250 or C255, or equivlent. Romanticism in Italy. A study of the major poetic works of Foscolo, Manzoni, and Leopardi. Lectures: 3 hours per week.

ITALIAN C445
Twentieth-Century Novel (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of representative novelistic works of this century. Lectures: 3 hours per week.

ITALIAN C446
Modern Italian Poetry (3 credits)
Prerequisite: ITAL C250 or C255, or equivalent. A study of the principal literary trends in modern Italian poetry. Lectures: 3 hours per week.

ITALIAN C480
Tutorial I (3 credits)
Prerequisite: Permission of the Department. A course designed to meet the individual needs of advanced students. Guided readings in Italian language and/or literature. Written and oral criticism of the works studied.

ITALIAN C481
Tutorial II (3 credits)
Prerequisite: Permission of the Department. A course designed to meet the individual needs of advanced students. Guided readings in Italian language and/or literature. Written and oral criticism of the works studied.

ITALIAN C482
Tutorial III (3 credits)
Prerequisite: Permission of the Department. A course designed to meet the individ-

ual needs of advanced students. Guided readings in Italian language and/or literature. Written and oral criticism of the works studied.

NOTE: Students who have received credit for ITAL C480 may register for ITAL C482, provided the subject matter is different.

ITALIAN C483
Tutorial IV (3 credits)
Prerequisite: Permission of the Department. A course designed to meet the individual needs of advanced students. Guided readings in Italian language and/or literature. Written and oral criticism of the works studied.

NOTE: Students who have received credit for ITAL C481 may register for ITAL C483, provided the subject matter is different.

Linguistics:

LINGUISTICS C200
Introduction to Linguistics (6 credits)
Introduction to the principles of general linguistics. Basic phonetics and phonemics. Emphasis on synchronic linguistic analysis, with a brief introduction to historical and comparative linguistics.

LINGUISTICS C300
Sociolinguistics I (3 credits)
The interaction of linguistic and social structures. Regional and social linguistic variations. Social variables. Linguistic variations and linguistic theory. Attitudes towards linguistics variety and educational policies. The social psychology of language choice. Language problems and literacy. Users and uses of language. Social processes in linguistic structure. Lectures: 3 hours per week.

LINGUISTICS C301
Sociolinguistics II (3 credits)
Prerequisite: LING C300, or permission of the Department. Directions in sociolinguistics. The Whorf-Sapir hypothesis. Conceptual categories in primitive communities. Ethnography or cognitive systems. American-Indian grammatical categories. Lectures: 3 hours per week.

LINGUISTICS C310
Historical and Comparative Linguistics I (3 credits)
Prerequisite: LING C200, or permission of the Department. The nature of language. Traditional, historical, structural, transformational grammars. Structural variations in language.

NOTE: Students who have received credit for LING C210 may not take this course for credit.

LINGUISTICS C311
Historical and Comparative Linguistics II (3 credits)
Prerequisite: LING C310, or permission of the Department. The comparative method. Application of the comparative method. Reconstruction of protoforms. Reconstruction of words and meanings. The method of internal reconstruction and its applications.

NOTE: Students who have received credit for LING C211 may not take this course for credit.

LINGUISTICS C320
Semantics I (3 credits)
Prerequisite: LING C200 or equivalent, or permission of the Department. Linguistic history of semantics. The emotive elements in name and sense. Central and contextual meaning, feeling, tone. Synonymy, homonymy, polysemy. Synchronic and diachronic semantics. Lectures: 3 hours per week.

LINGUISTICS C321
Semantics II (3 credits)
Prerequisite: LING C320, or permission of the Department. Theory of change. (Meillet, Wundt, Gustaf Sterne, Hans Sperber, Briel, Sturtevant). Classifications of changes of meaning: genetic, causal, functional. Changes of model and changes of syntax. The Port Royal grammarians. Synesthesia and pseudo-synesthesia. Panchronistic statistical laws. Lectures: 3 hours per week.

LINGUISTICS C330
Anthropological Linguistics I (3 credits)
Prerequisite: LING C200, or equivalent. Theories about the development of language in mankind and individuals. The characteristics of human language as opposed to animal languages and other communication systems. Similarity and diversity among languages. Lectures: 3 hours per week.

LINGUISTICS C331
Anthropological Linguistics II (3 credits)
Prerequisite: LING C330, or permission of the Department. Speech surrogates and paralanguage. Language and thought in primitive communities. Swadesh, Sapir, Whorf's theories on some American-Indian languages. Linguistic change and reconstruction. Lectures: 3 hours per week.

LINGUISTICS C360
Language and Thought I (3 credits)
Prerequisite: LING C200, or equivalent. Meaning and the structure of languages. Grammar, competence, and performance. Language and perception. Universals in linguistic theory. Lectures: 3 hours per week.

LINGUISTICS C361
Language and Thought II (3 credits)
Prerequisite: LING C360, or permission of the Department. Cognition and the development of language. The cognitive basis of language learning in infants. Linguistic relativism. The structure of the psychological lexicon. Psychological models of bilingualism. Computer and linguistic processes. Lectures: 3 hours per week.

LINGUISTICS C372
Descriptive and Instrumental Phonetics (3 credits)
Prerequisite: LING C200, or permission of the Department. Description of speech sounds in articulatory terms. Identification and description of sounds which occur outside the Indo-European family of languages. Description of speech sounds as to their acoustic qualities: frequency, amplitude, pitch, stress. Interpretation of sound spectrograms.

NOTE: Students who have received credit for LING C370 and C371 may not take this course for credit.

LINGUISTICS C373
Phonemic Analysis (3 credits)
Prerequisite: LING C200 and/or LING

C372, or permission of the Department. The fundamentals of distinctive feature analysis as developed by Jakobsen, Chomsky, and Halle. Theoretical concepts and notational techniques will be emphasized. Extensive training in data analysis and rule writing.

NOTE: Students who have received credit for LING C417 may not take this course for credit.

LINGUISTICS C410
Theory of Morphology and Syntax I
(3 credits)

Prerequisite: LING C200, or equivalent. Traditional grammar and syntax. Structuralist grammar and syntax. Lectures: 3 hours per week.

LINGUISTICS C411
Theory of Morphology and Syntax II
(3 credits)

Prerequisite: LING C410, or permission of the Department. The theory of generative grammar. Phrase structure rules and specific transformational rules. Metatheoretical constraints. Theories of syntactic structures. Lectures: 3 hours per week.

LINGUISTICS C421
Non-Indo-European Structures (6 credits)

Prerequisite: LING C200 either previously or concurrently, or permission of the Department. This course is intended to give the student an acquaintance in depth with the structures of several languages differing markedly in their nature from Indo-European. Possible areas of study might be Eskimo, Finnish, Japanese, Swahili, Turkish, some Amerindian or Malayo-Polynesian language, etc. As a general rule, only four languages are investigated in a particular year.

LINGUISTICS C431
Comparative Indo-European Linguistics
(6 credits)

Prerequisite: LING C200, or permission of the Department. Through a comparative study of the phonology of the various branches of the Indo-European language family (Indo-Iranian, Hellenic, Italic, Germanic, Slavic, Baltic, etc.), this course will familiarize the student with the techniques used in linguistic reconstruction. Emphasis will be given to the development and differentiation of languages through time.

LINGUISTICS C492
Special Topics in Linguistics I (3 credits)

Prerequisite: Permission of the Department. This course offers an opportunity for detailed examination of a particular area of Linguistics.

LINGUISTICS C493
Special Topics in Linguistics II (3 credits)

Prerequisite: Permission of the Department. This course is offered as a continuation of LING C492, but may also be taken as a separate 3-credit course.

Modern Languages:

The following courses give instruction in language and cultures not normally covered by the Department. Any or all of them may be offered when a specific ethnic community has persuaded the University of its interest in seeing them put on, and of its willingness to support them.

MODERN LANGUAGES C200
Fundamentals in the Study of a Modern Language (6 credits)

Prerequisite: Permission of the Department. In this course, students are introduced to the study of a modern language in which the Department does not offer a full programme. The language studied may vary from year to year. Emphasis on understanding, reading, and writing. Lectures and laboratory.

MODERN LANGUAGES C300
Special Topics in the Study of a Modern Language I (3 credits)

Prerequisite: MODL C200, or permission of the Department. This course is designed for students with a fair knowledge of a modern language in which the Department does not offer a full programme, and require instruction in special topics in oral and written expression. The language studied may vary from year to year. Lectures and laboratory.

MODERN LANGUAGES C301
Special Topics in the Study of a Modern Language II (3 credits)

Prerequisite: MODL C200, or permission of the Department. A student repeating MODL C300 registers for MODL C301, provided the subject matter is different.

MODERN LANGUAGES C400
Advanced Topics in the Study of a Modern Language I (3 credits)

Prerequisite: Permission of the Department. This course is designed for students with a good knowledge of a modern language in which the Department does not offer a full programme. Selected topics in the language and/or literature are studied in depth.

MODERN LANGUAGES C401
Advanced Topics in the Study of a Modern Language II (3 credits)

A student repeating MODL C400 for credits registers under MODL C401, provided the subject matter is different.

Portuguese:

PORTUGUESE C400
Portuguese Language and Literature
(6 credits)

Prerequisite: SPAN C235, C255 or equivalent, and any 6 credits at the 400 level in Spanish. A course designed for advanced Spanish language students. Readings in Portuguese begin as early as the second week of class.

Russian:

RUSSIAN C210
Introductory Course in Russian A/B
(6 credits)

Prerequisite: Permission of the Department. A beginners' course in the Russian language, designed to acquaint the student in one year with pronunciation, the main grammatical aspects, and a basic vocabulary. Emphasis is placed on speaking, reading, and writing Russian. Must be taken concurrently

with RUSS C220. Lectures and laboratory.

RUSSIAN C211
Introductory Course in Russian B
(3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of RUSS C210. It is designed for students who have taken some Russian at the CEGEP level or equivalent. Must be taken concurrently with RUSS C210. Lectures and laboratory.

RUSSIAN C220
Introduction to Russian Studies A/B
(6 credits)
Prerequisite: Permission of the Department. An introductory language course that develops all basic skills. Emphasis on the audio-lingual approach; i.e., on speaking and understanding. Must be taken concurrently with RUSS C210. Lectures and laboratory.

RUSSIAN C221
Introduction to Russian Studies B
(3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of RUSS C220. It is designed for students who have taken some Russian at the CEGEP level or equivalent. Must be taken concurrently with RUSS C211. Lectures and laboratory.

RUSSIAN C235
Composition and Translation I (6 credits)
Prerequisite: Permission of the Department. This course will give the student sufficient training to read Russian and to translate from Russian into English with reasonable competence. No previous knowledge of Russian required. Texts will include a variety of reading material of current interest.
NOTE: This course alone may not be used as a prerequisite for advanced courses in Russian.

RUSSIAN C250
Intermediate Russian A/B (6 credits)
Prerequisite: RUSS C210 or C220, or equivalent. A complete review of grammar, and practice in composition, reading, and conversation. Through reading of short stories and additional material, the student is given the opportunity to gain acquaintance with Russian culture and literature. Lectures and laboratory.

RUSSIAN C251
Intermediate Russian B (3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of RUSS C250. It is designed for students who have taken at least four semesters of Russian at the CEGEP level or equivalent. May be taken concurrently with RUSS C255.
NOTE: Students who have received credit for RUSS C250 may not take this course for credits.

RUSSIAN C255
Composition and Translation II (6 credits)
Prerequisite: RUSS C210 or C220, or equivalent. This course is a continuation of Composition and Translation I, and presents more complicated problems of translation from Russian into English. It is also an introduction to the basic skills of translating English into Russian.

RUSSIAN C300
Advanced Composition and Stylistics
(6 credits)
Prerequisite: RUSS C250 or equivalent. This course is intended to give the student increased fluency in and a firmer command of the language. The emphasis of the course is on stylistics and composition. Lectures.

RUSSIAN C305
Composition and Translation III (6 credits)
Prerequisite: RUSS C255 or equivalent. This course is a continuation of Composition and Translation II and deals with advanced problems and techniques of translation from Russian and into Russian.

RUSSIAN C350
Literature in Translation (6 credits)
A study of representative works of Russian literature. All readings and lectures will be in English.

ALL COURSES WITH NUMBERS 400 AND HIGHER ARE CONDUCTED IN RUSSIAN.

RUSSIAN C420
Introduction to Nineteenth-Century Russian Literature through the Short Story
(6 credits)
Prerequisite: RUSS C250 or equivalent. The short story will be used both as a subject for literary study and as a reflection of the history and social preoccupation of the period. Opportunity will be provided for discussion. Some attention will be paid to composition.

RUSSIAN C430
Soviet Literature (6 credits)
Prerequisite: RUSS C250 or equivalent. A general survey of Soviet prose, drama, and poetry from 1917 to the present day. The aim of the course is to familiarize the student not only with the literature itself but also with its origins and development. Opportunity will be provided for discussions. Some time will be devoted to advanced composition.

RUSSIAN C435
Russian Drama (6 credits)
Prerequisite: RUSS C250 or equivalent. The course traces the development of Russian drama from the end of the eighteenth century to the present day.

RUSSIAN C470
Study of an Individual Russian Author I
(3 credits)
Prerequisite: RUSS C250 or equivalent. This course will consist of the detailed study of a Russian author.

RUSSIAN C471
Study of an Individual Russian Author II
(3 credits)
Prerequisite: RUSS C250 or equivalent. This course will consist of the detailed study of a Russian author.

RUSSIAN C480
Tutorial I (3 credits)
Prerequisite: Permission of the Department. Guided readings in Russian literature and/or language, with at least two major assignments to meet the student's individual needs.

RUSSIAN C481
Tutorial II (3 credits)
Prerequisite: Permission of the Department. Guided readings in Russian literature and/or language, with at least two major assignments to meet the student's individual needs.
NOTE: Students who have received credit for RUSS C480 may register for RUSS C481 provided the subject matter is different.

Spanish:

SPANISH C210
Introductory Course in Spanish A/B
(6 credits)
Prerequisite: Permission of the Department. A comprehensive and thorough introductory language course for the student with little or no knowledge of Spanish. Practice is given in reading, writing, and conversation, with particular emphasis placed on oral work. In the second term, classes are conducted, as far as possible, in Spanish. It may be taken concurrently with SPAN C220 and/or SPAN C235. Lectures and laboratory.

SPANISH C211
Introductory Course in Spanish B
(3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of SPAN C210. It is designed for students who have taken some Spanish at the CEGEP level or equivalent. May be taken concurrently with SPAN C221. Lectures and Laboratory.

SPANISH C220
Introduction to Spanish Studies A/B
(6 credits)
Prerequisite: Permission of the Department. An introductory language course that develops all basic skills, with emphasis on the audio-visual approach; i.e., on speaking and understanding. It may be taken concurrently with SPAN C210 and/or SPAN C235. Lectures and laboratory.

SPANISH C221
Introduction to Spanish Studies B
(3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of SPAN C220. It is designed for students who have taken some Spanish at the CEGEP level or equivalent. May be taken concurrently with SPAN C211. Lectures and Laboratory.

SPANISH C235
Composition and Translation I (6 credits)
Prerequisite: Permission of the Department. This course will give the student sufficient training to read Spanish, and to translate from Spanish into English with reasonable competence. No previous knowledge of Spanish required. Texts will include a variety of reading material of current interest.
NOTE: This course alone may not be used as a prerequisite for advanced courses in Spanish.

SPANISH C250
Intermediate Spanish A/B (6 credits)
Prerequisite: SPAN C210 or C220, or equivalent. Included in this course are a complete review of Spanish grammar and a study of some advanced aspects of usage. Composition and oral practice are emphasized. Selected readings will be assigned through which the student will become familiar with some aspects of Hispanic letters and civilization. This class will be conducted in Spanish.

SPANISH C251
Intermediate Spanish B (3 credits)
Prerequisite: Permission of the Department. This course is equivalent to the second term of SPAN C250. It is designed for students who have taken at least four semesters of Spanish at the CEGEP level or equivalent. This class will be conducted in Spanish.
NOTE: Students who have taken SPAN C250 may not take this course for credit.

SPANISH C255
Composition and Translation II (6 credits)
Prerequisite: SPAN C210 or C220, or equivalent. This course offers a complete review of Spanish grammar and deals with some advanced aspects of usage. Translation techniques are especially emphasized. Readings include novels and short stories.
NOTE: Students who received credit for SPAN C235 prior to 1980-81 may not take this course for credit.

SPANISH C270
Spanish for Commerce and Administration
(3 credits)
Prerequisite: SPAN C210 or equivalent. This course is intended for students in Commerce and Business Administration. Emphasis on Commerce terminology and the language of business.

SPANISH C300
Advanced Composition and Stylistics
(6 credits)
Prerequisite: SPAN C250 or C255, or equivalent. The course treats in detail the finer points of Spanish stylistics. Special attention is given to creative composition and semantics.

SPANISH C305
Composition and Translation III (6 credits)
Prerequisite: SPAN C250 or C255, or equivalent. This course offers to the advanced student practice in translation from English and French into Spanish. Specimen texts will include literary prose, commercial letters, journalistic articles, and a variety of material of current interest.

SPANISH C360
Spanish Civilization (6 credits)
Prerequisite: SPAN C250 or C255, or equivalent. This course is designed to acquaint the student with Spain's intellectual and cultural history as reflected in its writers. Although the course is primarily concerned with ideas and aesthetics, attention will also be given to the development of language, customs, and folklore.

SPANISH C361
Spanish-American Civilization (6 credits)
Prerequisite: SPAN C250 or C255, or equivalent. A study of the development of Spanish-American civilization from pre-Columbian times to the present. The student will trace Spanish-American cultural and political thinking from Colonial times to the present, as reflected in the literature.

UNLESS OTHERWISE INDICATED, ALL COURSES WITH NUMBERS 400 AND HIGHER WILL BE CONDUCTED IN SPANISH

SPANISH C405
The Middle Ages (6 credits)
Prerequisite: SPAN C250 or C255, or equivalent. Study of literary works from the twelfth to the fifteenth centuries. Particular emphasis will be placed on *El Poema de mio Cid,* the *Libro del buen amor,* and the *Celestina.*

SPANISH C410
The Golden Age (6 credits)
Prerequisite: SPAN C250 or C255, or equivalent. This course is designed to introduce to the student the masterpieces of Spain's Siglo de Oro. Particular emphasis is given to Cervantes' *Don Quijote.* Analysis of some of the works of Lope, Tirso, and Calderon.

SPANISH C415
Literature of the Eighteenth and Nineteenth Centuries (6 credits)
Prerequisite: SPAN C250 or C255, or equivalent. A study of representative works of prose, poetry, and theatre of the writers of the eighteenth and nineteenth centuries, with particular attention given to such literary movements as romanticism, realism, and naturalism.

SPANISH C420
The Generation of 1898 (3 credits)
Prerequisite: SPAN C250 or C255, or equivalent. A study of the major writers of this generation: Unamuno, Valle-Inclan, Machado, Baroja, Azorin, Maeztu, etc.

SPANISH C425
The Group of 1927 (3 credits)
Prerequisite: SPAN C250 or C255, or equivalent. Analysis of the poetry and theatre of Garcia Lorca and his contemporaries: Juan Ramon Jiménez, Guillén, Alberti, and others.

SPANISH C430
Post-Civil War Literature (3 credits)
Prerequisite: SPAN C250 or C255, or equivalent. General characteristics of literature since the Civil War. A study of some of the following authors will be undertaken: Cela, Matute, Ferlosio, Martin-Santos, Sender, Goytisolo, etc.

SPANISH C435
The Short Story: Spain (3 credits)
Prerequisite: SPAN C250 or C255, or equivalent. A seminar on the principal writers of short stories in Spain.

SPANISH C440
Romanticism and Modernism in Spanish America (3 credits)
Prerequisite: SPAN C250 or C255, or equivalent. A study of the principal works and authors of these movements.

SPANISH C445
Contemporary Spanish-American Literature (3 credits)
Prerequisite: SPAN C250 or C255, or equivalent. A study of the major works of some of the following authors: Carpentier, Rulfo, Paz, Fuentes, Asturias, Garcia Marquez, Roa Bastos, Vargas Llosa, Borges, Cortazar.

SPANISH C450
Mexican Literature (3 credits)
Prerequisite: SPAN C250 or C255, or equivalent. A study of selected works from pre-Columbian times to the present.

SPANISH C455
The Short Story: Spanish America (3 credits)
Prerequisite: SPAN C250 or C255, or equivalent. A seminar on the principal writers of short stories in Spanish America.

SPANISH C460
History of the Spanish Language (6 credits)
Prerequisite: LING C200 either previously or concurrently and SPAN C250 or C255, or equivalent. A study of the origins of the Spanish language from Vulgar Latin into Old Spanish, and thence through the centuries. Attention will also be given to non-Latin contributions to the Spanish lexicon, stylistic development, and, especially, the parallel development of the other Romance vernaculars. This course will be conducted in English.
NOTE: This course may be taken for credits in the Linguistics Programme.

SPANISH C470
Spanish Balladry (6 credits)
Prerequisite: SPAN C250 or equivalent. A study of the influence of the *romancero* in the literature of the Spanish-speaking world, from the traditional cycles (The Cid, King Arthur) to Garcia Lorca and contemporary modern balladry.

SPANISH C480
Tutorial I (3 credits)
Prerequisite: Permission of the Department. Guided readings in Spanish or Spanish-American language, and/or literature, to meet the student's individual needs.

SPANISH C481
Tutorial II (3 credits)
Prerequisite: Permission of the Department. Guided readings in Spanish or Spanish-American language, and/or literature, to meet the student's individual needs.
NOTE: Students who have received credit for SPAN C481 may register for SPAN C482 provided the subject matter is different.

SPANISH C482
Tutorial III (3 credits)
Prerequisite: Permission of the Department. Guided readings in Spanish or Spanish-American language, and/or literature, to meet the student's individual needs.
NOTE: Students who have received credit for SPAN C480 may register for SPAN C482, provided the subject matter is different.

SPANISH C483
Tutorial IV (3 credits)
Prerequisite: Permission of the Department. Guided readings in Spanish or Spanish-American language, and/or literature, to meet the student's individual needs.
NOTE: Students who have received credit for SPAN C481 may register for SPAN C483, provided the subject matter is different.

31.220 Philosophy

Acting Chairman
J. McGRAW, *Associate Professor*

Professors
R.B. ANGEL
S.G. FRENCH
E. JOOS
A. KAWCZAK
D. LASKEY
D. PARK

Associate Professors
M. AHMAD
C. ALLEN
J. DOYLE
E. EGAN
C. GRAY
H. LAU
V. McNAMARA
D. O'CONNOR
J. ORNSTEIN
M. REIDY
V. ZEMAN

Assistant Professor
S. MULLETT

The Philosophy Department offers a number of programmes of study which include: Honours, Specialization, Major and Minor, and certain joint programmes. Double majors programmes are also offered in consultation with other departments. The Philosophy Department should be consulted for information concerning these programmes. Seminars and tutorials are offered mainly for students in a programme in Philosophy. In addition, courses are offered to students with a general or specific interest in Philosophy.

Students enrolled in Philosophy programmes are required to confirm their status with the Department during the second week of lectures of each year.

Students admitted to the Honours programme on or after June 1, 1977, will be bound by the Honours requirements outlined in §16.2.4 of this Calendar. Students who already had Honours status by June 1, 1977, will continue to be governed by the requirements that applied at the date of their admission to the Honours programme.

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

60 BA Honours in Philosophy

Year I
6 Chosen from PHIL C201^3, C202^6, C223^3, C245^3
6 PHIL C241^6
6 PHIL C310^6

Year II
6 Chosen from PHIL C224^6, C226^3 and C228^3, C321^6
6 PHIL C412^6
6 PHIL elective or cognate credits*

Year III
6 Chosen from PHIL C313^6, C410^6, C469^6
6 Chosen from PHIL C421^6, C449^6, C485^6, C486^3, C488^3
6 PHIL C460^6
6 *PHIL elective credits at the 300 or 400 level

**PHIL elective and cognate credits to be chosen in consultation with the Department.*

NOTE: Students preparing for graduate work should acquire a good reading knowledge of a related modern language or of Classical Greek or Latin.

60 BA Specialization in Philosophy

Year I
6 Chosen from PHIL C201^3, C202^6, C223^3, C245^3
6 PHIL C241^6
6 PHIL C310^6

Year II
6 Chosen from PHIL C224^6, C226^3 and C228^3, C321^6
6 PHIL C412^6
6 PHIL elective or cognate credits*

Year III
6 Chosen from PHIL C313^6, C410^6, C469^6
6 Chosen from PHIL C421^6, C449^6, C485^6, C486^3, C488^3
6 PHIL C460^6
6 PHIL elective credits at the 300 or 400 level*.

**PHIL elective and cognate credits to be chosen in consultation with the Department.*

36 BA Major in Philosophy

Year I
6 Chosen from PHIL C201^3, C202^6, C223^3 and C245^3
6 PHIL C310^6

Year II and III
6 Chosen from PHIL C241^6, C410^6, C412^6
6 Chosen from PHIL C313^6, C412^6, C469^6
12 PHIL elective credits to be chosen in consultation with the Department.

24 Minor in Philosophy
6 Chosen from PHIL C201^3, C202^6, C211^6, C223^3 and C245^3
18 PHIL elective credits to be chosen in consultation with the Department.

72 BA Joint Honours in Philosophy and Education
See Section 31.004

72	**BA Joint Honours in Philosophy and English** See Section 31.004
72	**BA Joint Honours in Philosophy and History** See Section 31.004
72	**BA Joint Honours in Philosophy and Sociology** See Section 31.004
72	**BA Honours in Philosophy and Religion** See Section 31.004
48	**BA Major in Political Philosophy**
18	POLI C270[6], C370[6], C470[6]
6	Chosen from PHIL C201[3] and C223[3], C202[6], C211[6]
24	Chosen from PHIL C342[3], C344[3], C346[3], C469[6], C412[6], C417[6], POLI C372[6], SOCI C300[6]

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

PHILOSOPHY C201
Problems of Philosophy (3 credits)
This course is designed for students who wish to be acquainted with philosophy through problems rather than through the historical approach. Methods used in Philosophy will be discussed and topics, such as the existence of God, the mind-body problem, freedom and determinism, rights and duties, will be used to illustrate philosophical approaches.
NOTE: This course may not be taken for credits with PHIL C202.

PHILOSOPHY C202
Introduction to Philosophy (6 credits)
A study of basic questions in the major areas of philosophy, and the classical attempts to answer them.
NOTE: This course may not be taken for credits with PHIL C201.

PHILOSOPHY C211
Philosophical Classics (6 credits)
A critical discussion of selected philosophical classics. Readings will be chosen from Plato, Aristotle, Descartes, Hume, Kant, and one recent or contemporary philosopher.

PHILOSOPHY C223
Critical Thinking (3 credits)
This course is designed to help students to think more clearly and critically and to improve their ability to present, defend, and evaluate arguments. Sample topics may include the nature of definition, validity and truth, formal and informal fallacies.

PHILOSOPHY C224
Introduction to Logic (6 credits)
A study of the basic elements of Aristotelian and modern logic, including an analysis of argumentation, language, definition, fallacies, deduction, and induction.

PHILOSOPHY C226
Elementary Deductive Logic (3 credits)
This course begins with an analysis of syllogistic logic and proceeds to an extensive treatment of propositional logic. The course will conclude with an examination of the rudiments of predicate logic. The techniques of constructing formal derivations will be included.

PHILOSOPHY C228
Methods of Enquiry (3 credits)
A study of the methods and structure of basic types of organized knowledge: mathematics, science, history, and normative disciplines. This course will discuss crucial concepts in scientific methodology, such as the axiomatic system, the hypothetico-deductive method, and scientific explanation.

PHILOSOPHY C230
Human Identity (3 credits)
A critical examination of some theories of human identity, including reference to male and female identity, the unity of self, and transcendence of self. Works will be selected from the history of philosophy, literature, and the social sciences.

PHILOSOPHY C231
Introduction to General Systems Theory (6 credits)
An elementary survey of the transdisciplinary general systems approach. Such basic concepts as structure information and regulation will be explored, and a teleological framework suited to the social and behavioural sciences will be developed.

PHILOSOPHY C240
Philosophy of Man (6 credits)
A study of representative classical and contemporary positions on human nature, action, and life. Such topics as knowledge, affectivity, freedom, person, will be treated.

PHILOSOPHY C241
Ethics (6 credits)
A study of the principles underlying moral conduct with reference to classical and contemporary positions.

PHILOSOPHY C242
Business Ethics (3 credits)
The purpose of this course is to elucidate the key ethical notions with reference to the business world. The intention is to make students aware of situations in which ethical implications arise rather than to impose specific rules.

PHILOSOPHY C244
Social and Political Philosophy (6 credits)
Prerequisite: Six credits in Philosophy, or the permission of the Department. This course treats of the individual in relation to the State and Society through the reading and discussion of selected texts. Problems treated: political authority, its sources and varieties; the limits of political authority; classical images of man; personality and society; the paradox of social control.

PHILOSOPHY C245
Philosophy and Society (3 credits)
The purpose of this course is to introduce students to the philosophical treatment of social problems. Examples would include conceptions of man as individual and as citizen, as free and as determined, as well as conceptions of the state and of the community.

PHILOSOPHY C246
Introduction to Philosophy of Religion (3 credits)
This course examines the classical arguments for the existence of God. Course content includes the nature of faith and of religious experience, as well as the nature of religious language.

PHILOSOPHY C248
Biomedical Ethics (3 credits)
This course is a study of the moral and legal norms involved in medical issues such as health care priorities; euthanasia; fertility control and abortion, protection of the incapable; preventive medicine; problems of physician and patient relationships; human experimentation; genetic engineering; and behaviour modification.

PHILOSOPHY C291
Introductory Special Topics in Philosophy (3 credits)
The topics selected will vary from year to year.

PHILOSOPHY C292
Introductory Special Topics in Philosophy (3 credits)
A student who has received credit for PHIL C291 may register for PHIL C292 provided the subject matter is different.

PHILOSOPHY C310
Ancient Western Philosophy (6 credits)
A study of the principal developments from the Presocratics through Plato and Aristotle up to Plotinus. Emphasis will be placed on the critical reading of selected texts.

PHILOSOPHY C312
Existentialism (6 credits)
A course designed to acquaint the student with the fundamentals of the existentialist movement as a philosophical perspective. Among philosophers considered will be Kierkegaard, Nietzsche, Heidegger, Sartre, Merleau-Ponty, Jaspers, Marcel, and Berdyaev.

PHILOSOPHY C313
Contemporary Philosophy (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. A study of selected philosophers of the twentieth century. Movements and figures discussed vary from year to year. Such topics as the following will be considered: Positivism, Pragmatism, Marxism, Phenomenology, Existentialism, and Philosophical Analysis.

PHILOSOPHY C321
Symbolic Logic (6 credits)
An introduction to modern formal logic, its techniques and applications. The course covers sentential logic, first-order predicate logic with identity, intuitive set theory, relations, and functions.

PHILOSOPHY C331
Philosophical Ideas in Literature (6 credits)
Prerequisite: Second-year standing, or permission of the instructor. A critical examination of philosophical ideas as expressed in various literary works. The subject matter is chosen for its relevance to such themes as the nature of man, the nature of the good life, and the relation of man to society.

PHILOSOPHY C334
Anarchism and Marxism (3 credits)
The contradictory character of Russian cultural and philosophical development is used as a basis for an analysis of the main philosophical differences between Anarchism and Marxism as presented in the works and activities of its main protagonists (Bakunin, Kropotkin, Plekhanov, Lenin). Philosophical relevance of such major Russian writers as Dostoyevsky, Tolstoy, and Solzhenitsyn will be shown as well.

PHILOSOPHY C335
Contemporary Marxism (3 credits)
Critical and comparative analysis of different schools and individual thinkers of twentieth-century Marxism, in particular, those in Russia, Germany, and France. These positions will be considered primarily on their philosophical merits.

PHILOSOPHY C338
Philosophical Psychology (3 credits)
A critical examination of the explanation of human behaviour and the self in the light of new developments in philosophy and psychology. Detailed studies of selected problems such as motives, intention, the concept of person, choice, reason, freedom, purpose, and action.

PHILOSOPHY C340
Contemporary Theories of Love (6 credits)
Prerequisite: One previous course in Philosophy. A two-semester topical analysis of love and attendant phenomena, with special emphasis on their metaphysical, epistemological, psychological, aesthetic, social, theological, and linguistic dimensions. The classes will be conducted on a lecture-seminar basis.

PHILOSOPHY C341
Political Philosophy (6 credits)
Prerequisite: Six credits in Philosophy, or the permission of the Department. This course concentrates on the theoretical foundations of communism, fascism, and democracy through the reading and discussion of selected texts.

PHILOSOPHY C342
Political Philosophy (3 credits)
Prerequisite: Second-year standing, or permission of the Department. Critical analysis of contemporary political-philosophical concepts, such as tolerance, violence, separatism, racism, and the nationalism of visible minorities.

PHILOSOPHY C343
Legal Philosophy (6 credits)
Prerequisite: Six credits in Philosophy, or the permission of the Department. This course concentrates on definitions of law and the ways of reasoning in Law. It includes discussion of such basic legal issues as responsibility and excuse, person and property, right and obligation, contract and punishment.

PHILOSOPHY C344
Law, Liberty, and Human Rights (3 credits)
In this course, the student will examine several perspectives from which the problem of the relation between law and morality may be treated. Conflicting concepts of law, morality, and the relation of the individual to society will be discussed. The problem of authority will be examined in relation to

issues of civil liberties, civil rights, and the social basis of legal conflicts.

PHILOSOPHY C345
Philosophy of Social Science (6 credits)
Prerequisite: Six credits in Philosophy or third-year standing in a social science department, or permission of the Department. Following the distinction between natural and social sciences, this course will be concerned with philosophies of the social sciences. It will investigate the structure, methodology, and problems of these sciences toward understanding and clarifying how they function as quasi-separable disciplines and how they contribute to a wider understanding of man and his varied social relations.

PHILOSOPHY C346
Philosophy of Social Science (3 credits)
Philosophical examination of the structure and methodology of the social sciences. Special attention to problems of functionalism, teleological explanation, and the testing of social theories.

PHILOSOPHY C347
Phenomenology and Psychology (3 credits)
This is an introduction to the fundamentals of Phenomenology through a study of conscious experience, both subjective and intersubjective. Standard psychological models and methods will be examined in order to open up phenomenological alternatives in the fields of aesthetics, literary criticism, religious and moral experience. Phenomenology complements psychological research in these areas.

PHILOSOPHY C348
Philosophy of Culture (6 credits)
Prerequisite: Six credits in Philosophy, or the permission of the Department. This course entails a philosophical critique of contemporary culture, stressing such issues as identity crisis, the weakening of structures of orthodoxy, meditation and humour in relation to the vita activa, work in relation to labour, and the socio-cultural manifestation of value crisis.

PHILOSOPHY C349
Philosophy of Education (6 credits)
An examination of philosophical principles underlying educational theories and of the problems arising from the practical implementation of those theories.

PHILOSOPHY C350
Philosophy of Communication (6 credits)
This course is concerned with a philosophical analysis of the foundations of communication acts: linguistic and non-linguistic, cognitive and affective. Philosophical sources may include: F. Nietzsche, M. Black, M. Merleau-Ponty, and P. Ricoeur.

PHILOSOPHY C351
Philosophy of Religion (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. A critical assessment of modern developments in Philosophy regarding the question of whether thinking man can maintain a religious belief in God.

PHILOSOPHY C352
Philosophy of History (6 credits)
Prerequisite: Second- or third-year standing in a History programme, or permission of the Philosophy Department. An analysis of the nature of historical knowledge and explanation will be followed by a study of classical and contemporary attempts to elucidate the meaning of history. Authors discussed include Augustine, Vico, Kant, Hegel, Marx, Spengler, Popper, Toynbee.

PHILOSOPHY C353
Aesthetics I (3 credits)
Prerequisite: Second-year standing, or permission of the Department. A philosophical analysis of selected aspects of the aesthetic experience and the logic of appraisal. Specimen topics include: perception in art, symbolic expression, the role of feeling and emotion in aesthetic judgment, objectivity and subjectivity of value judgments, commensurability of values.

PHILOSOPHY C354
Artificial Intelligence (3 credits)
Prerequisite: Six credits in Philosophy or in Computer Science. The purpose of this course is to explore the analogy between mental activity and the operation of computers or "electronic brains", with a view to answering the question: Can machines think? Such topics as the following will be treated: the concept of the Turing machine; the Turing test of intelligence; the functionalist theory of the mind; the nature of creativity; and the alleged implications of Godel's incompleteness theorem.

PHILOSOPHY C362
Second-Year Seminar (6 credits)
Prerequisite: Second-year standing in a philosophy programme, or permission of the Department. Problems in Moral Philosophy, with topics to be announced. This seminar will conduct the students through a series of problems on moral topics.

PHILOSOPHY C398
Intermediate Special Topics in Philosophy (3 credits)
Consideration of a special topic selected from the principal areas of philosophy, e.g., ethics, epistemology, metaphysics, logic.

PHILOSOPHY C399
Intermediate Special Topics in Philosophy (3 credits)
Prerequisite: Permission of the Department. A student who has received credit for PHIL C398 may register for PHIL C399 provided the subject matter is different.

PHILOSOPHY C410
Medieval Philosophy (6 credits)
Prerequisite: PHIL C310, or permission of the Department. A study of Western Philosophy from Augustine to the later Scholastics.

PHILOSOPHY C412
Modern Philosophy (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. A study of Western Philosophy from Descartes to Hume.

PHILOSOPHY C417
Nineteenth-Century Philosophy (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. An examination of some of the main currents of post-Kantian philosophy. Hegel and the post-Hegelians, the romantic reaction, positivism, and pragmatism.

PHILOSOPHY C421
Philosophy of Science (6 credits)
Prerequisite: One course in logic, or permission of the Department. A critical examination of problems pertaining to the structure and status of scientific theories and the logic of scientific inference. Such topics as the following will be discussed: explanation, confirmation, verifiability and falsifiability, problems of definition, observational and theoretical terms, models and analogies.

PHILOSOPHY C422
Advanced Topics in Logic (3 credits)
Prerequisite: A 300-level course in Symbolic Logic, or permission of the Department. This course is designed to extend the basic knowledge of logic by introducing students to areas such as modal logic, deontic logic, higher-order calculi, logical theory, and logical semantics.

PHILOSOPHY C449
Phenomenology (6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. Origins and development of phenomenology from Brentano and Meinong through the different stages of Husserl's writings. Post-Husserlian modifications will be considered briefly. The second term will be devoted to a discussion of the influence of the phenomenological movement on contemporary developments in the social sciences and humanities. Actual topics will be determined by the student's areas of interest and academic qualifications.

PHILOSOPHY C453
Epistemology (6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. A study of characteristic problems in epistemology, with particular emphasis on their historical and systematic contexts. The concepts analyzed include fundamental questions in the empirical sciences.

PHILOSOPHY C454
Metaphysics (6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. In this course, metaphysics will be treated in two ways: firstly, the problem of being in classical and contemporary ontologies; secondly, the metaphysical suppositions underlying epistemological, moral, and social theories.

PHILOSOPHY C455
Aesthetics II (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. This course will examine central problems in the philosophy of art and sensibility, examining the works of major authors in this area, such as Aristotle, Longinus, Kant, Hegel, Dewey, Santayana.

PHILOSOPHY C456
Recent Ethical Theory (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. A critical analysis of leading contemporary ethical theories from Moore to the present. Special attention is given to the naturalistic fallacy, the reducibility or normative statements, ethical reasoning, and the relation of ethics to psychology and sociology.

PHILOSOPHY C457
Philosophy of God (6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. The problem of the natural knowledge of God, including readings from Plato, Aristotle, Anselm, Aquinas, Descartes, Hume, Pascal, Kant, Hegel, Feuerbach, Marx, Kierkegaard, Newman, Nietzsche, Sartre, Ayer, and Russell.

PHILOSOPHY C460
Honours Seminar in Epistemology and Metaphysics (6 credits)
Prerequisite: Second-year standing. Intensive study of major contemporary issues in the theory of knowledge and metaphysics, designed to accommodate honours students in any department.

PHILOSOPHY C463
Third-Year Seminar (6 credits)
Prerequisite: Third-year standing in a philosophy programme, or permission of the Department. Themes selected from modern and contemporary Philosophy, with topics and authors to be announced.

PHILOSOPHY C469
Contemporary Analytic Philosophy (6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of Department. A seminar devoted to the investigation of selected philosophical problems as they arise in the writings of such philosophers as Moore, Russell, Ayer, Carnap, Quine, Wittgenstein, Ryle, Wisdom, Austin, and others.

PHILOSOPHY C471
Tutorial in Philosophy (3 credits)
Prerequisite: Eighteen credits in Philosophy, or permission of the Department. If permission for a tutorial is granted, the tutorial Director will supervise an intensive reading programme in the student's area of special interest.

PHILOSOPHY C472
Tutorial in Philosophy (3 credits)
Prerequisite: Eighteen credits in Philosophy, or permission of the Department. If permission for a tutorial is granted, the tutorial Director will supervise an intensive reading programme in the student's area of special interest.

PHILOSOPHY C480
Author Course in Philosophy (3 credits)
Prerequisite: Eighteen credits in Philosophy or permission of the Department. This course involves the intensive study of the writings of a selected author(s). The author or authors selected will be announced.

PHILOSOPHY C485
Kant (6 credits)
Prerequisite: Twelve credits in Philosophy, or permission of the Department. An intensive study of Kant's *Critique of Pure Reason* and related works.

PHILOSOPHY C486
The Study of a Given Thinker (3 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. A detailed study of one or more of the central works of a major philosopher. When appropriate, some attention may be devoted to his philosophical development.

PHILOSOPHY C488
The Study of a Given Thinker (3 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. Students who have received credit for PHIL C486 may register for PHIL C488 provided that the subject matter is different.

PHILOSOPHY C493
Advanced Special Topics in Philosophy
(6 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. Consideration of a special topic selected from the principal areas of philosophy: e.g., value theory, epistemology, metaphysics, philosophy of mind, philosophy of science, philosophical logic.

PHILOSOPHY C495
Advanced Special Topics in Philosophy
(6 credits)
Prerequisite: Six credits in Philosophy and permission of the Department. A student who has received credit for PHIL C493 may register for PHIL C495 provided the subject matter is different.

PHILOSOPHY C496
Advanced Special Topics in Philosophy
(3 credits)
Prerequisite: Six credits in Philosophy, or permission of the Department. Consideration of a special topic selected from one of the principal areas of philosophy; e.g., value theory, epistemology, metaphysics, philosophy of mind, philosophy of science, philosophical logic.

PHILOSOPHY C497
Advanced Special Topics in Philosophy
(3 credits)
Prerequisite: Six credits in Philosophy and permission of the Department. A student who has received credit for PHIL C496 may register for PHIL C497 provided the subject matter is different.

31.230 Physics

Chairman
M.S. DUBAS, s.j., *Associate Professor*

Professor
S.K. MISRA

Associate Professors
D.E. CHARLTON
C.E. EAPPEN
N.W. EDDY
B. FRANK
C.S. KALMAN
A.L. KIPLING
R.L. KOVACS
J.A. MACKINNON
S.P. MORRIS
J.P. PETOLAS
R.C. SHARMA
J. SHIN

Assistant Professor
S.K. SOOD

Adjunct Assistant Professor
S.G. ZENONE

Supervisors of Undergraduate Laboratories
S. MARKIZA
W. SPEARS

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

72 BSc Honours in Physics

Year I
15 PHYS C232^3, C243^3, C244^3, C253^3, C254^3
4 Chosen from PHYS C291^1, C292^1, C293^1, C294^1, C295^2

Years II and III
35 PHYS C335^3, C336^3, C344^3, C352^3, C354^3, C364^3, C392^1, C394^1, C434^3, C435^3, C456^3, C477^3, C478^3
6 MATH C261^6
12 Credits to be chosen, either with the approval of the Department, or from the following two patterns -
A: Experimental, or
B: Theoretical.

Pattern A: Experimental
12 credits chosen from PHYS C355^3 or C465^3 or C467^3 or C457^3 or C345^3, C494^1 or C495^1, C295^2, or both C291^1 and C292^1, C296^2, C496^4

Pattern B: Theoretical
9 credits chosen from PHYS C345^3, C355^3, C465^3, C467^3, C457^3, and 3 credits chosen from PHYS C295^2, or both C291^1 and C292^1; C494^1 or C495^1

63 BSc Specialization in Physics

Year I
15 PHYS C232^3, C243^3, C244^3, C253^3, C254^3
4 Chosen from C291^1, C292^1, C293^1, C294^1, C295^2

Years I, II and III
20 PHYS C335^3, C352^3, C354^3, C364^3, C392^1, C394^1, C434^3, C477^3
6 MATH C261^6
18 Credits to be chosen, either with the approval of the Department, or from the following two patterns -
A: Experimental, or
B: Theoretical

Pattern A: Experimental
18 PHYS C355^3, C465^3 or C467^3, C478^3; C295^2 and C296^2, or C291^1 and C292^1 and C293^1 and C294^1; C494^1, C496^4

Pattern B: Theoretical
12 PHYS C336^3, C344^3, C456^3, C478^3
3 PHYS C435^3 or C465^3 or C467^3
3 PHYS C345^3 or C457^3

80 BSc Specialization in Physics-Geology

Year I
30 GEOL C210^3, C211^3, C212^3, C213^3
PHYS C232^3, C243^3, C253^3, C254^3
MATH C261^6

Years II & III
21 GEOL C216^3, C221^2, C310^2, C311^6, C317^2, C415^3, C422^3
9 Chosen from GEOL C223^2 and Geology 300- and 400-level courses
10 PHYS C291^1, C293^1, C295^2, C364^3, C434^3
10 Chosen from PHYS C244^3, C292^1, C294^1, C335^3, C336^3, C352^3, C392^1, C394^1, C465^3, C494^1, C395^1

90 BSc Specialization in Physics/Marketing

24 PHYS C243^3, C244^3, C253^3, C254^3, C291^1, C292^1, C293^1, C294^1, C295^2, C296^2, C364^3, C394^1
12 To be chosen from PHYS C335^3, C336^3, C344^3, C345^3, C352^3, C354^1, C355^1, C392^1, C395^5, C396^5, C397^5, C434^3, C435^3, C456^3, C457^3, C465^3, C467^3, C477^3, C478^3, C481^4, C494^1, C495^1
6 MATH C261^6
6 QUAN C243^3, C244^3, or equivalent
3 COMP C211^3
6 ACCO C213^3, C218^3
6 MANA C213^3, C340^3
6 ECON C201^3, C203^3
6 MARK C213^3, C350^3
15 Chosen from the Department of Marketing

36 BSc Major in Physics

Year I, II and III
15 PHYS C243^3, C253^3, C254^3, C291^1, C293^1, C364^3, C394^1

9 Chosen from PHYS C232[3], C244[3], C292[1], C294[1], C295[2], C335[3], C336[3], C344[3], C352[3], C354[3], C392[1], C434[3], C435[3], C456[3], C477[3], C478[3]

12 To be chosen with the approval of the Department

NOTE: Students following a Major in Physics must register with the Department by November 1 of each year.

24 Minor in Physics

These credits are to be chosen in consultation with the Department.

NOTE: Students following a Minor in Physics must register with the Department by November 1 of each year.

32 Certificate in Scientific Measurement (Biology Option)

12 BIOL C220[3], C222[3], C223[3], C230[3]

6 CHEM C311[2], C316[1], C390[2], C399[1]

14 PHYS C295[2], C296[2], C396[5], C397[5]

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

33 Certificate in Scientific Measurement (Chemistry Option)

19 CHEM C211[6], C310[2], C314[2], C315[1], C319[1], C390[2], C399[1], C490[3], C499[1]

14 PHYS C295[2], C296[2], C396[5], C397[5]

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

32 Certificate in Scientific Measurement (Physics Option)

18 PHYS C253[3], C254[3], C293[1], C294[1], C295[2], C296[2], C354[3], C355[3]

3 Chosen from PHYS C243[3], or C352[3] or C364[3]

5 Chosen from PHYS C395[5], or C396[5] or C397[5]

6 MATH C261[6]

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

NOTE:

In general, experiments involved in the laboratory courses on the Sir George Williams Campus can be done from week to week, at variable times chosen by the student.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

PHYSICS C204
Mechanics (3 credits)

Prerequisite: CEGEP Mathematics 103 or equivalent, previously or concurrently. Kinematics, Newton's Laws of Motion. Statics, Dynamics. Conservation of momentum and energy. Rotational motion. Periodic motion. Lectures only.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration. See PHYS C224 for laboratory associated with this course.

PHYSICS C205
Electricity and Magnetism (3 credits)

Prerequisite: PHYS C204 or equivalent. Electrical charge and Coulomb's Law. Electrical field and potential. Capacity, Steady state, and transient currents. Electro-magnetic induction and alternating currents. Lectures only.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration. PHYS C225 for laboratory associated with this course.

PHYSICS C206
Waves and Modern Physics (3 credits)

Prerequisite: PHYS C204 or equivalent. Simple harmonic motion. Wave propagation. Superposition. Stationary waves. Doppler effect. Interference. Diffraction. Photoelectric effect. Compton effect. Bohr's atom. Radioactivity, fission, fusion. Lectures only.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration. See PHYS C226 for laboratory associated with this course.

PHYSICS C207
Heat and Sound (3 credits)

Prerequisite: 6 credits of Collegial Physics, and 6 credits of Collegial Calculus or equivalent. Temperature and thermometry, heat effects, measurement and transfer, thermal properties of matter, thermodynamics, first and second laws, kinetic theory, waves, vibrations, and accoustical phenomena. Lectures: 3 hours per week.

NOTE: This course is intended for pre-Engineering students. Students in programmes leading to the B.Sc. degree may not take this course for credits.

PHYSICS C210
Discoveries in Physics (6 credits)

A non-mathematical course in physics specifically designed for students who have had little or no experience in physics. It traces the fundamental ideas from which modern physics has emerged and attempts to develop insights into the understanding of natural phenomena. Lectures only.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits.

PHYSICS C215
The Mechanics of Visual Representation
(3 credits)

An introductory course combining laboratories and lectures illustrating the basic laws that govern the mechanism of image reproduction. Relevant topics concerning the interaction of light and materials are discussed and demonstrated. Students perform experiments with light-sensitive materials, the pinhole camera, light intensity, and illumination measurement. Human visual response, the gray scale, sensitometry, densitometry, the characteristic curve and ASA, DIN; film speeds are examined in depth. This course parallels CHEM C280, and both are designed to complement COMS C275 (Visual Dynamics I). This course is designed for students in Communication Studies. Lab and Lectures: 3 hours per week.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits.

PHYSICS C216
Understanding the Physics of Media
(6 credits)

The course covers the evolution of Physics in the discoveries that apply to technology and media. This course is designed for Communication Studies students. Lab: One 3-hour session per week for two terms.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits.

PHYSICS C217
The Physics of Photo-Reproduction
(3 credits)

Prerequisite: PHYS C215. A combined laboratory and lecture course designed for students in Communication Studies who have some basic knowledge of physical laws. Ideas introduced in the "Mechanics of Visual Representation" (PHYS C215) are further developed, covering such topics as exposure measurements and control, and the Standard Association Institute Photographic Exposure Guide. The mechanics of a lens, image formation, f-stops diaphragm openings, the 3-colour composition of light, the colour-temperature scale, and filters are studied. This course is designed so that the student will gain an intelligent and efficient use of his equipment. Lab and Lecture: 3 hours per week.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits.

PHYSICS C219
Physics of Photography (3 credits)

Prerequisite: 6 credits of Collegial physics, or the equivalent. This course is intended for students in university science programmes. It includes the following topics: Light, illumination; the photographic process, tone reproduction, the gray scale; sensitometry: the characteristic curve; characteristic curve analysis, gamma, contrast index, film speeds; exposure measurement and control; the exposure guide; previsualization, exposure zones; correct exposure, control of development, Optics: image formation, lenses, standards of definition, depth of focus, depth of field; covering power, perspective; image brightness, exposure, shutters; colour analysis, filters,. Lectures and laboratories: 3 hours per week.

PHYSICS C224
Introductory Experimental Mechanics
(1 credit)

Prerequisite: PHYS C204, previously or concurrently, or permission of the Department. A laboratory course covering fundamental experiments in classical mechanics. Experiments will include: Resolution of forces, centrifugal force and conservation of energy, pendulums. Laboratory only, 10 experiments.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

PHYSICS C225
Introductory Experimental Electricity
(1 credit)

Prerequisite: PHYS C205, previously or concurrently, or permission of the Department. A laboratory course covering fundamental experiments in electricity. Experiments will include Kirchoff's Law, resistors in series and parallel, oscilloscope, induction, Alternating Current. Laboratory only. 10 experiments.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

PHYSICS C226
Introductory Experimental Waves and Modern Physics (1 credit)

Prerequisite: PHYS C206, previously or concurrently, or permission of the Department. A laboratory course covering the fundamental experiments in waves and modern physics. Experiments include spectrometer measurements. Newton's rings and measurements involving radioactivity. Laboratory only. 10 experiments.

NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits to be applied to their programme of concentration.

PHYSICS C232
Theoretical Physics I (3 credits)

Prerequisite: MATH C261, previously or concurrently. Introduction to linear algebra. Ordinary Vector Calculus, matrices, determinants, system of linear equations; Introduction to ordinary differential equations with application to physics. (Linear first-order and second-order ordinary differential equations, Wronskian, non-homogenous differential equations, power-series method, problems from mechanics and electricity). Lectures only.

PHYSICS C241
Biomechanics of Human Motion (3 credits)

Prerequisite: PHYS C204 or CEGEP Physics 101. The application of elementary laws of mechanics to the understanding of static equilibrium conditions of the human body subjected to external forces - the efficiency of human movement seen from the reference point of physical laws as applied to sports. This course is intended for the physio-therapist, the athlete, and all those interested in understanding body mechanics in the light of inanimate physical laws. Lectures only.

NOTE: Students who have credits for PHYS C243 or equivalent may not take this course for credits.

PHYSICS C243
Classical Mechanics I (3 credits)
Prerequisite: PHYS C204 or CEGEP Physics 101; MATH C261, previously or concurrently. Fundamental concepts, the laws of motion, equilibrium of forces, friction, forces of constraint, centre of mass, work, potential, motion of a particle, motion in resisting media, simple harmonic oscillation, damped oscillations. Lectures only.
NOTE: See PHYS C291 for laboratory associated with this course.

PHYSICS C244
Classical Mechanics II (3 credits)
Prerequisite: PHYS C243 or equivalent. Central forces, Kepler's Laws, dynamics of a system of particles, mechanics of rigid bodies, Lagrange's equations, Hamilton's equations. Lectures only.
NOTE: See PHYS C292 for laboratory associated with this course.

PHYSICS C251
Introductions to Consumer and Commercial Electronics (3 credits)
A course primarily for people who wish to acquire a basic knowledge of some of today's consumer and commercial electronics. The course consists of a series of lectures, laboratory projects, and demonstrations. Topics to be treated are: High Fidelity Amplifiers; Programme Sources and Reproducers; AM, FM, and SSB Transmission; Black-and-White and Colour Television Reception; Auto-Electronics; Electronic Control Systems; Applications of Linear and Digital Integrated Circuits. Lectures: 2 hours per week. Laboratory: 2 hours per week.
NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits.

PHYSICS C253
Electricity and Magnetism I (3 credits)
Prerequisite: PHYS C205 or CEGEP Physics 201, or equivalent; MATH C261, previously or concurrently. Electric charge, Coulomb's Law, Electrostatic forces, electric field, Gauss's Law, electric potential, stored energy. Dielectrics, properties of materials in electric fields. Electric current, conduction in a vacuum and in material media, displacement current, magnetic field of a current, force on a current-carrying wire, magnetic induction, electromotive force, energy stored in a magnetic field. Magnetism in material media, magnetic circuits, Time-varying fields. Capacitance, resistance, inductance; circuitry. Lectures only.
NOTE: See PHYS C293 for laboratory associated with this course.

PHYSICS C254
Electricity and Magnetism II (3 credits)
Prerequisite: PHYS C253. The field concept. Maxwell's equations. Boundary conditions. Power and energy. The electrostatic field. Electrostatic potential. The concept of capacitance. Polarization. The concept of local field in matter. The magnetostatic field. The Biot-Savart law. The scalar magnetic potential. Plane waves. Total internal reflection. Lectures only.
NOTE: See PHYS C294 for laboratory associated with this course.

PHYSICS C255
Electronic Instrumentation (3 credits)
This course is recommended to students in programmes leading to the B.Sc. degree and to others who might work in scientific research laboratories. This course begins with basic electrical measurements, and gradually leads to amplifier circuits of vacuum tubes and transistors, operational amplifiers, oscillators. Servo systems as in strip-chart recorders, feed-back control, digital circuits and other devices currently used in research laboratories. Lectures: 3 hours per week. Laboratory: 2 hours per week.

PHYSICS C270
Introduction to Energy and Environment (3 credits)
This course is designed for students who have little or no background in physics. Topics covered include: Relationship of physics to environment and energy. Concept and definition of work and energy. Interaction of man and inanimate objects with the environment. Heat and chemical energy. Electromagnetic and nuclear energy. Conservation of energy - how it affects everyday life. Sources of energy used on earth. Solar energy. Production of wind power, water power, solar cells from sun's energy, biological uses, biopower. Lectures only.
NOTE: Students in programmes leading to the B.Sc. degree may not take this course for credits.

PHYSICS C273
Energy and Environment (3 credits)
Prerequisite: PHYS C270, or 6 credits in CEGEP Physics or equivalent. Nuclear energy stored in the earth. Geothermal energy. Biological energy stored in the earth. Second law of thermodynamics. Entropy. Food energy. Home heating and cooling. Solar heating. Transportation of man, goods, and energy. Recycling materials. Resource conservation and man's ability to change - need for a conservation ethic, need for alternate energy sources, need for public knowledge. Lectures only.

PHYSICS C291
Experimental Mechanics I (1 credit)
Prerequisite: PHYS C243, previously or concurrently. A laboratory course in mechanics. Experiments include pendulum, coefficient of restitution, centrifugal force, rotational inertia, inelastic impact.

PHYSICS C292
Experimental Mechanics II (1 credit)
Prerequisite: PHYS C291. A laboratory course in mechanics. Experiments include the use of air tracks to study acceleration, collisions, dissipative forces, and periodic motion. Other experiments include viscosity and surface tension of liquids.

PHYSICS C293
Experimental Electricity and Magnetism I (1 credit)
Prerequisite: PHYS C253, previously or concurrently. A laboratory course in electricity and magnetism. Experiments include motion of electrons in electric and magnetic fields, exponential relaxation, damped oscillations, resonance, nonlinearity, negative resistance.

PHYSICS C294
Experimental Electricity and Magnetism II (1 credit)
Prerequisite: PHYS C293. A laboratory course in electricity and magnetism. Experiments include the transistor, amplification and frequency response, transient response and negative feedback, positive feedback and oscillation, periodic structures.

PHYSICS C295
Experimental Electronics I (2 credits)
Prerequisite: PHYS C225 or CEGEP Physics 201, or equivalent. A practical laboratory course in electronics. Experiments include resistors in series and parallel, voltmeter, Ohm's Law, Kirchhoff's Current and Voltage Laws, Ohmmeter, capacitor, inductor, transformer, rectifiers, voltage doubler, zener diode, power supplies.

PHYSICS C296
Experimental Electronics II (2 credits)
Prerequisite: PHYS C295. A practical laboratory course in electronics. Experiments include oscilloscope, biasing of bipolar transistors, transistor amplifiers, voltage and current regulators, field-effect transistor, oscillators, operational amplifier circuits, audio amplifier, I-F transformer, limiter, amplitude and frequency modulation.

PHYSICS C302
Space Physics (6 credits)
A highly descriptive course for university science students in the elements of astronomy, astro-physics, artificial satelite motion, and space travel. The topics covered are: The earth and its motions; celestial mechanics; the solar system; elements of atomic physics; radio astronomy; the sun, other stars, galaxies, and nebulae; artificial satellite motions; communication satellites; rocket motion; space travel, space missions and their findings; the nature of our universe. Lectures: 3 hours per week for two terms.

PHYSICS C324
Selected Topics in Physics (3 credits each)
The topics chosen will vary from year to year. The course is designed to provide students with the opportunity of extending their studies beyond subjects already included in the curriculum. Open to all students with permission of the Department.

PHYSICS C325
Selected Topics in Physics (3 credits)
Students who have received credit for PHYS C324 may register for PHYS C325 provided the subject matter is different.

PHYSICS C335
Theoretical Physics II (3 credits)
Prerequisite: PHYS C232 or equivalent. Linear Algebra: Linear Map, Linear coordinate transformations, eigenvalue problem, Vector space of functions, Sturm-Liouville problem, Fourier Series and applications. Lectures only.

PHYSICS C336
Theoretical Physics III (3 credits)
Prerequisite: PHYS C335 or equivalent. Classification and derivation of partial differential equations in physics. Separation of variables technique. The Fourier method for solving partial differential equations. Special Functions. Application to physical problems arising from electro-statics, heat conduction, wave propagation, etc. Lectures only.

PHYSICS C344
Advanced Classical Mechanics (3 credits)
Prerequisite: PHYS C232 and C244; or equivalent. Lagrangian and Hamiltonian dynamics, collision between particles, motion of rigid bodies, Hamilton-Jacobi theory, small oscillations. Lectures only.

PHYSICS C345
Special Relativity (3 credits)
Prerequisite: PHYS C244, C254. Historical introduction, Einstein and relativity, application of the Lorentz transformation, four-vectors, the Lorentz invariance of physical theories. Lectures only.

PHYSICS C352
Optics (3 credits)
Prerequisite: PHYS C205, or CEGEP equivalent. Geometrical optics: General treatment of optical systems. Wave optics: review of simple harmonic motion, wave equation, superposition of waves, electromagnetic waves, scattering, polarization, interference-coherent sources, interference-uniformly extended sources, diffraction, waves in a dispersive medium, lasers. Lectures only.

PHYSICS C354
Electronics I (3 credits)
Prerequisite: PHYS C205 or CEGEP Physics 201, or equivalent. Semi-conductor physics: p-n junction, bipolar transistor, field-effect transistor, Circuit Theory, Diode Applications, Bipolar Transistor: h-parameters, small-signal amplifiers. Lectures only.
NOTE: See PHYS C295 and C296 for associated laboratory courses.

PHYSICS C355
Electronics II (3 credits)
Prerequisite: PHYS C354. Biasing of Transistors; Feedback Analysis, Common Circuits involving Operational Amplifiers; Large Signal Amplifiers, Digital Circuits: gates, flip-flops, logic functions. Lectures only.

PHYSICS C364
Atomic Physics (3 credits)
Prerequisite: PHYS C205 or the CEGEP equivalent. Special relativity. Wave-particle duality. The Rutherford atom, the Bohr-Sommerfeld atom. Origin of quantum theory. Schroedinger's equation. Electrons and ions. Electromagnetic radiation. Atomic structure. Lectures only.
NOTE: This course should not be taken before the second year of university studies. See PHYS C394 for laboratory associated with this course.

PHYSICS C383
Medical Physics (3 credits)
Prerequisite: CEGEP Pre-Science or equivalent. This course provides a background in the physics needed to understand instrumentation used in the fields of biology and medicine. Topics are taken from the fields of mechanics, properties of materials, thermodynamics, optics, electromagnetic theory, and radiation physics. Lectures only.

PHYSICS C392
Experimental Optics (1 credit)
Prerequisite: PHYS C352, previously or concurrently. An experimental course in optics. Experiments include diffraction, optical

instruments, resonance, and various experiments using lasers. Laboratory only, 10 experiments.

PHYSICS C394
Experimental Atomic Physics I (1 credit)
Prerequisite: PHYS C364, previously or concurrently, PHYS C226 or CEGEP Physics 301 or equivalent, or permission of the Department. An experimental course in atomic physics. Experiments include the Frank-Hertz experiment, the Zeeman effect, Mass spectrometer, and some X-ray work. Laboratory only, 10 experiments.

PHYSICS C395
Communication Media Electronics
(5 credits)
Prerequisite: PHYS C296 or equivalent. Distortion, Noise, i.f. transformers, converters, power supplies, superheterodyne circuits, video amplifiers and detectors, VHF adn UHF tuning, automatic gain control, FM and FM detectors, synchronization circuits, sweep circuits, automatic frequency and phase control, color demodulation, burst-gate amplifiers, chromabandpass amplifiers, static convergence, dynamic convergence, high-voltage generators, Techniques of troubleshooting electronic circuits. Laboratory only.

PHYSICS C396
Computer Electronics (5 credits)
Prerequisite: PHYS C296 or equivalent. Diode clipping circuits, transistor as a switch, multivibrator circuits, logic circuits. Study and troubleshooting of integrated circuit logic gates, J-K flip-flops, analogue-to-digital and digital-to-analogue converters, frequency-divider circuits, digital multiplexers and demultiplexers, pulse-distributor logic gates. Study and implementation of basic logic functions and Boolean expressions to programme a small digital computer. Laboratory only.

PHYSICS C397
Experimental Medical Electronics
(5 credits)
Prerequisite: PHYS C296 or equivalent. A laboratory course in the maintenance and use of medical instruments, including ECG monitor, electro-cardiograph, cardiotachometer, blood-pressure recorder, respiration-rate recorder, and clinical thermometer. The component parts of the instruments are studied first, and then, the instruments are constructed and operated. Laboratory only.

PHYSICS C428
Advanced Topics in Physics (3 credits)
The topics chosen will vary from year to year. The course is designed to provide students with the opportunity of extending their studies beyond subjects already included in the curriculum. Open to all students with permission of the Department.

PHYSICS C429
Advanced Topics in Physics (3 credits)
Students who have received credit for PHYS C428 may register for PHYS C429 provided the subject matter is different.

PHYSICS C434
Thermodynamics (3 credits)
Prerequisite: PHYS C204 or CEGEP Physics 101, or equivalent. Temperature, simple thermodynamic systems; work, heat, and first law; ideal gas, Van der Waal's gas, heat engines, reversible and irreversible processes; entropy, second law, thermodynamics potentials, kinetic theory, Maxwell distribution, mean free path. Lectures only.
NOTE: This course should not be taken before the second year of university studies. See PHYS C494 for laboratory associated with this course.

PHYSICS C435
Statistical Physics (3 credits)
Prerequisite: PHYS C364 and C434. Basic probability concepts, statistical description of systems of particles, thermal interactions, microscopic theory and macroscopic measurements, temperature and entropy, M-B, E-D, B-E statistics. Canonical distribution in the classical approximation, general thermodynamics interaction. Lectures only.

PHYSICS C436
Theoretical Physics IV (3 credits)
Prerequisite: PHYS C232. Theory of Complex variables leading to Residue theory, with applications to Physics. Tensor calculus: tensor algebra; line element, covarient differentiation; applications. Lectures only.

PHYSICS C456
Electromagnetic Theory I (3 credits)
Prerequisite: PHYS C254, C336. Derivation of the laws of electrostatics and magnetostatics from the basic experimental laws; methods of images; solutions of Laplace's and Poisson's equations for electrostatic problems, magnetism, Maxwell's equations. Lectures only.

PHYSICS C457
Electromagnetic Theory II (3 credits)
Prerequisite: PHYS C456. Wave Solution of Maxwell's equations in various media. Classical model of a dielectric. Helmholtz equation and wave equation by Green's functions. Multipole fields. Interaction of charged particles. Radiation by moving charges. Abraham-Lorentz theory.

PHYSICS C465
Nuclear Physics (3 credits)
Prerequisite: PHYS C364. Discussion of nuclear properties. The deuteron nuclear structure and models. Scattering. Nuclear transitions, disintegrations, and reactions. Radioactivity and decay laws. Passage of radiation through matter, shielding, radiation dosage. Detection and acceleration of particles. Neutrons. Nuclear reactors. Environmental concerns. Lectures only.
NOTE: See PHYS C495 for laboratory associated with this course.

PHYSICS C467
Solid State Physics (3 credits)
Prerequisite: PHYS C477 previously or concurrently. Crystal structure of solids. Lattice dynamics. Specific heat. Electrons in metals. Free-electron Theory of conduction. Band Theory. Semi-conductors. Dielectric and magnetic properties of solids. Lectures only.

PHYSICS C477
Quantum Mechanics I (3 credits)
Prerequisite: PHYS C364; PHYS C232 or C244. State functions and their interpretation, wave packet, linear momentum, motion of a free particle, Schroedinger's equation, stationary state, solution, potential wells. Lectures only.

PHYSICS C478
Quantum Mechanics II (3 credits)
Prerequisite: PHYS C477. The harmonic oscillator, creation operators, approximation methods of solving Schroedinger's equation, perturbation theory, system of particles, motion in three dimensions, spin, angular momentum, hydrogen atom. Lectures only.

PHYSICS C481
Biophysics I (3 credits)
Prerequisite: University-II standing in science, or permission of the Department. Biophysical principles of size and shape of organisms, bio-energetics, physiological fluid flows, and mathematical models of biological processes. Lectures only.

PHYSICS C482
Biophysics II (3 credits)
Prerequisite: PHYS C481, or permission of the Department. Biophysical and physiological systems analysis, circulatory regulation, muscles, and neural network. Lectures only.

PHYSICS C494
Experimental Thermodynamics I (1 credit)
Prerequisite: PHYS C434, previously or concurrently. A laboratory course in thermodynamics. Experiments include Clement and Desormes' experiment, vaporization, specific heats, liquid nitrogen boiling. Laboratory only, 10 experiments.

PHYSICS C495
Experimental Nuclear Physics I (1 credit)
Prerequisite: PHYS C394 and C465, previously or concurrently. A laboratory course in nuclear physics. Experiments include gamma- and beta-ray spectroscopy, nuclear magnetic resonance, absolute counting, half-life determination, nuclear activities. Laboratory only, 10 experiments.

PHYSICS C496
Methods of Experimental Physics
(4 credits)
Prerequisite: PHYS C296 or equivalent, and C394 or equivalent, or permission of the Department. Experiments include fundamentals of digital logic and applications of operational amplifiers, solid-state and nuclear physics. Students are encouraged to propose new experiments and will have the opportunity to design and build equipment. Laboratory only.

PHYSICS C497
Experimental Atomic Physics II (2 credits)
Prerequisite: PHYS C364 and C394. An experimental approach to some basic methods of radiation detection and measurement, including alpha-, beta-, and gamma-ray spectroscopy. Other experiments present Hall Effect, Microwaves and Vacuum Techniques. Laboratory only.

31.240 Political Science

Acting Chairman
H.P. HABIB, *Professor*

Professor
L.P. SINGH

Associate Professors
H. ANGELL
P. ARNOPOULOS
K. CABATOFF
R.C. COYTE
M. DANIS
K. HERMANN
H. HUTTER
A. KROKER
L. LASZLO
J.W. MOORE
E.M. PRICE
H. SHULMAN
B. WILLIAMS

Assistant Professors
A.B. GOLLNER
A. ROSS

Lecturer
H. CHORNEY

Post-Retirement Associate Professor
K. OH

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Political Science
18 POLI C200^6, C270^6 or C271^3, and C273^3, C372^6
42 Chosen from at least three of the five Groups in Political Science, with a minimum of 18 credits taken at the 400 level, 12 of which must be seminar courses.*

**6 credits may be taken in a cognate discipline with the permission of the Department.*

60 BA Honours in Political Science (Concentration in a Special Field of Study)
18 POLI C200^6, C270^6 or C271^3, and C273^3, C372^6
18 Chosen from at least three of the five Groups in Political Science
24 Chosen from one of the five Groups in Political Science with a minimum of 18 credits taken at the 400 level, 12 of which must be seminar courses.*

**6 credits may be taken in a cognate discipline with the permission of the Department.*

66 BA Joint Honours in Political Sociology
18 SOCI C200^6, C300^6, C435^6
18 POLI C200^6, C270^6, C470^6
12 Chosen from SOCI C400^6, C405^6, POLI C370^6, C372^6
12 Chosen from SOCI C280^6, C320^6, C330^6, C335^6, C353^3, C354^3, POLI C230^6, C336^6, C351^6, C353^6, C360^6, C430^6
6 Chosen from SOCI C409^6*, or POLI C471^3 and C473^3 or C474^6

**With the approval of the Honours Adviser, the prerequisites for SOCI C409 may be modified for students in this programme.*

60 BA Specialization in Political Science
18 POLI C200^6, C270^6 or C271^3 and C273^3, C372^6
42 Chosen from at least three of the five Groups in Political Science. A minimum of 24 credits must be taken at the 300 level. A minimum of 12 credits must be taken at the 400 level.*

**6 credits may be taken in a cognate discipline with the permission of the Department.*

42 BA Major in Political Science
6 POLI C200^6
36 Chosen from at least three of the five Groups in Political Science. A minimum of 24 credits must be taken at the 300 or 400 level.

42 BA Major in Political Science (Concentration in a Special Field)
6 POLI C200^6
18 Chosen from one of the five Groups in Political Science. A minimum of 18 credits must be at the 300 or 400 level.
18 Chosen from the other four Groups in Political Science. A minimum of 6 credits must be at the 300 or 400 level.

24 Minor in Political Science
6 POLI C200^6
18 Chosen from any of the five Groups in Political Science. A minimum of 12 credits must be taken at the 300 or 400 level.

The Department of Political Science offers the following programmes of study: a General Honours; an Honours, with concentration in a special field of study; a Specialization; a General Major; a Major, with concentration in a Special field of study; and a Minor.

Additionally, in cooperation with the Department of Sociology and Anthropology, the Department offers an Honours programme in Political Sociology.

In order to maintain Honours status, stu-

dents must obtain approval for their programmes from the Honours Adviser each year prior to registration. In the second year of the Honours programme, each student will choose a faculty adviser to advise the student on course selection and seminar research essays.

Students seeking admission to the Honours programme on or after June 1, 1977 will be bound by the Honours requirements outlined in §16.2.4 of this calendar.

Students who already had Honours status by June 1, 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

The Specialization is designed for students who wish to acquire a broad knowledge of the discipline without the additional requirements of the Honours programme.

The programme of courses leading to a Minor in Political Science consists of 24 credits in the Department. The Minor is designed to provide an opportunity for students to make a combination with a Specialization, a Major, or Honours in another discipline. A student's Minor will be arranged in consultation with the Department of Political Science so that it relates to courses in the Major area of study.

Explanation of Course Numbers.

1. Courses in the 200 and 300 range are open to all Political Science students and students in other departments.
2. Courses in the 400 range are open to all students in Political Science who are in their second or third year. Students in other departments may take these courses with the permission of the Political Science Department.

Group 1: International

POLITICAL SCIENCE C210
International Relations (6 credits)

POLITICAL SCIENCE C311
International Public Law (3 credits)

POLITICAL SCIENCE C313
International Law and Power Relations (3 credits)

POLITICAL SCIENCE C315
International Organization (3 credits)

POLITICAL SCIENCE C317
Regional Organizations (3 credits)

POLITICAL SCIENCE C321
The Middle East in World Politics (3 credits)

POLITICAL SCIENCE C323
Eastern Europe in World Politics (3 credits)

POLITICAL SCIENCE C410
Seminar in Modern World Society (6 credits)

POLITICAL SCIENCE C411
Diplomacy (3 credits)

POLITICAL SCIENCE C413
Foreign Policy (3 credits)

POLITICAL SCIENCE C415
International Justice (3 credits)

POLITICAL SCIENCE C417
Peace Studies (3 credits)

POLITICAL SCIENCE C419
Strategic Studies (3 credits)

POLITICAL SCIENCE C421
Transnational Politics (3 credits)

POLITICAL SCIENCE C451
Canadian External Affairs (3 credits)

Group 2: Comparative Politics

POLITICAL SCIENCE C230
Comparative Politics of Western Europe (6 credits)

POLITICAL SCIENCE C236
The Politics of Developing Areas (6 credits)

POLITICAL SCIENCE C330
American Government and Politics (6 credits)

POLITICAL SCIENCE C331
British Government and Politics (3 credits)

POLITICAL SCIENCE C332
African Government and Politics (6 credits)

POLITICAL SCIENCE C333
The Government and Politics of the Soviet Union (3 credits)

POLITICAL SCIENCE C334
Women and the Law (6 credits)

POLITICAL SCIENCE C335
Contemporary Politics of China (3 credits)

POLITICAL SCIENCE C336
Urban Politics (6 credits)

POLITICAL SCIENCE C337
Contemporary Politics of Japan (3 credits)

POLITICAL SCIENCE C339
Mid-East Political Systems I (3 credits)

POLITICAL SCIENCE C341
Mid-East Political Systems II (3 credits)

POLITICAL SCIENCE C430
Comparative Political Parties (6 credits)

POLITICAL SCIENCE C432
Seminar on Western Political Systems (6 credits)

POLITICAL SCIENCE C434
Seminar on Asian Political Systems (6 credits)

POLITICAL SCIENCE C436
Seminar on Politics of East Europe (6 credits)

POLITICAL SCIENCE C438
Honours Tutorial (6 credits)

Group 3: Canadian

POLITICAL SCIENCE C250
Canadian Government and Politics (6 credits)

POLITICAL SCIENCE C334
Women and the Law (6 credits)

POLITICAL SCIENCE C336
Urban Politics (6 credits)

POLITICAL SCIENCE C350
Canadian Public Law (6 credits)

POLITICAL SCIENCE C351
Canadian Federalism (3 credits)

POLITICAL SCIENCE C352
Canadian Parties, Interest Groups, and Public Opinion (6 credits)

POLITICAL SCIENCE C353
Quebec Politics (3 credits)

POLITICAL SCIENCE C355
Nationalism: The Canadian Experience (3 credits)

POLITICAL SCIENCE C363
Issues in Canadian Public Policy (3 credits)

POLITICAL SCIENCE C365
Canadian Public Administration (3 credits)

POLITICAL SCIENCE C367
Quebec Public Administration (3 credits)

POLITICAL SCIENCE C450
Seminar on Quebec Government and Politics (6 credits)

POLITICAL SCIENCE C451
Canadian External Affairs (3 credits)

POLITICAL SCIENCE C452
Intergovernmental Relations in Canada (6 credits)

POLITICAL SCIENCE C453
The Provinces in Canadian Federalism (3 credits)

POLITICAL SCIENCE C454
Seminar on Legislative, Executive, and Judicial Decision-Making (6 credits)

POLITICAL SCIENCE C471
Political Thought and Ideology in Canada (3 credits)

Group 4: Public Policy and Administration
POLITICAL SCIENCE C357
Social and Political Power in Canadian Society (3 credits)

POLITICAL SCIENCE C360
Comparative Public Administration (6 credits)

POLITICAL SCIENCE C361
Government, Society and the Public Purpose (3 credits)

POLITICAL SCIENCE C363
Issues in Canadian Public Policy (3 credits)

POLITICAL SCIENCE C365
Canadian Public Administration (3 credits)

POLITICAL SCIENCE C367
Quebec Public Administration (3 credits)

POLITICAL SCIENCE C369
Regionalism and Public Policy in Canada (3 credits)

POLITICAL SCIENCE C381
Bureaucracy and Public Policy (3 credits)

POLITICAL SCIENCE C413
Foreign Policy (3 credits)

POLITICAL SCIENCE C454
Seminar on Legislative, Executive, and Judicial Decision-Making (6 credits)

POLITICAL SCIENCE C461
The State and Economic Life (3 credits)

POLITICAL SCIENCE C462
Seminar on Comparative Public Policy (6 credits)

POLITICAL SCIENCE C463
Government and Business in Canada (3 credits)

POLITICAL SCIENCE C465
Analysis and Evaluation of Public Policy (3 credits)

Group 5: Theory
POLITICAL SCIENCE C270
History of Political Theory (6 credits)

POLITICAL SCIENCE C271
Ancient Greek Political Philosophy (6 credits)

POLITICAL SCIENCE C273
Roman, Medieval, and Renaissance Political Philosophy (3 credits)

POLITICAL SCIENCE C325
Ideas and Ideologies in the Middle East (3 credits)

POLITICAL SCIENCE C370
Problems and Concepts in Political Theory (6 credits)

POLITICAL SCIENCE C371
Early Modern Political Philosophy (3 credits)

POLITICAL SCIENCE C372
Methodology of Political Science (6 credits)

POLITICAL SCIENCE C373
Late Modern Political Philosophy (3 credits)

POLITICAL SCIENCE C375
Nationalism: Origins, Operation, Significance (3 credits)

POLITICAL SCIENCE C377
Catholic Social and Political Thought (3 credits)

POLITICAL SCIENCE C470
Contemporary Political Thought (3 credits)

POLITICAL SCIENCE C471
Political Thought and Ideology in Canada (3 credits)

POLITICAL SCIENCE C472
Seminar on Communications and Politics (6 credits)

POLITICAL SCIENCE C473
Seminar on Political Theory and Historical Understanding (3 credits)

POLITICAL SCIENCE C474
Seminar on Political Theory and Scientific Method (6 credits)

POLITICAL SCIENCE C475
Marxism (3 credits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

POLITICAL SCIENCE C200
Introduction to Political Science (6 credits)
A description of the features universal to the governing processes of societies, and the nature and consequences of the major variations in these processes. The course combines a theoretical and conceptual framework, with a study of selected political systems and countries. It is designed to act both as an introduction to the discipline for those students who plan to study further and to serve also those students who require a systematic examination of the field in a single course.

POLITICAL SCIENCE C210
International Relations (6 credits)
An introductory course in world affairs. Among the topics covered will be: the histori-

cal evolution of the international system; definitions of basic concepts; types of conflict and cooperation among states; environmental, economic, socio-cultural, and ideological factors; critical problems, current issues, and major trends in world politics.

POLITICAL SCIENCE C230
Comparative Politics of Western Europe (6 credits)
A comparative study of a selected number of Western European countries. Special emphasis will be given to the dynamics of the political process. Most of the illustrative content will be based on Great Britain, France, and the Federal Republic of Germany.

POLITICAL SCIENCE C236
The Politics of Developing Areas (6 credits)
A study of the politics and structures of government in developing areas such as Asia, Africa, or Latin America, against the background of social and economic change since World War II. The specific area which will be studied will vary from year to year depending on the interests of the instructor.

POLITICAL SCIENCE C250
Canadian Government and Politics (6 credits)
An institutional and functional analysis of the Canadian federal system. The course centers upon the major problems of concern in the Canadian political process and considers the formal and informal institutions within which these problems might be solved. The political system is studied within the context of federalism; the electoral system; political parties; interest groups; public opinion and the Canadian political culture.

POLITICAL SCIENCE C270
History of Political Theory (6 credits)
A general survey of the writings of the great thinkers in the western political tradition, from the classical period to the middle of the nineteenth century. This course provides a general introduction to the history of political thought.
NOTE: Students who have received credits for POLI C271 or C273 may not take this course for credits.

POLITICAL SCIENCE C271
Ancient Greek Political Philosophy (6 credits)
A study of the political thought of the ancient Greeks. The principal texts to be studied are *The Republic of Plato* and *The Politics* of Aristotle. This course is particularly recommended for students in the political theory area of concentration.
NOTE: Students who have received credits for POLI C270 may not take this course for credits.

POLITICAL SCIENCE C273
Roman, Medieval, and Renaissance Political Philosophy (3 credits)
A study of the political thought of Rome, the Middle Ages, and the Renaissance, with special emphasis upon the political writings of Cicero, St. Augustine, St. Thomas Aquinas, and Machiavelli. This course is recommended for students in the political theory area of concentration.
NOTE: Students who have received credits for POLI C270 may not take this course for credits.

POLITICAL SCIENCE C311
International Public Law (3 credits)
An introductory course in legal inter-state relations. Among the topics covered will be: the sources and development of law; relationships with municipal law; meaning of legal concepts; rights and duties of states; sovereignty and territoriality; state recognition and succession.

POLITICAL SCIENCE C313
International Law and Power Relations (3 credits)
A general course on the role of law in world politics. Among the topics covered will be: the theory and reality of law; international transactions and diplomatic law; customary and treaty law; judicial settlement of disputes; the laws of war and neutrality.

POLITICAL SCIENCE C315
International Organizations (3 credits)
An introductory course in intergovernmental institutions. Among the topics covered will be: the development of international public unions; the League of Nations and the United Nations; the structure and function of international administration; specialized agencies and world order.

POLITICAL SCIENCE C317
Regional Organizations (3 credits)
A general course in international structural integration. Among the topics covered will be: the dynamics of socio-political unification; theories of regionalism; supra-national communities and common markets. Emphasis will be given to institutions such as the EEC, COMECON, OAS, OAU, LAFTA, and ASEAN.

POLITICAL SCIENCE C321
The Middle East in World Politics (3 credits)
A survey of major regional and international problems facing the Middle East. The role of foreign powers will be examined with special emphasis on the USA and USSR. Selected topics include the Arab-Israeli question, the Lebanese crises, the Cyprus crises, the Iranian Revolution and its impact on international affairs and the crisis of the Gulf, Horn of Africa and the Red Sea.

POLITICAL SCIENCE C323
Eastern Europe in World Politics (3 credits)
This course will deal with the role of the Soviet Union and its East European allies in international affairs. Among the topics covered will be: the ideological foundations and historical development of socialist foreign policy; problems of domestic security, defense, international trade, foreign aid, and expansion of influence; the East European alliance system, CEMA, and the WTO (Warsaw Pact).

POLITICAL SCIENCE C325
Ideas and Ideologies in the Middle East (3 credits)
A survey of contemporary major political, historical, socio-economic and religious ideologies and movements, which affect Middle Eastern political thought. Special attention is directed to Arab nationalism, Zionism, Turkish nationalism, the Islamic Revival in Iran, Socialism and Communism.

POLITICAL SCIENCE C330
American Government and Politics (6 credits)
A study of American politics dealing not

only with formal political institutions, such as the legislature, the executive, and the judiciary, but also with the processes and problems of government: public opinion, political parties, pressure groups, health and welfare, foreign policy, and racial problems.

POLITICAL SCIENCE C331
British Government and Politics (3 credits)
Government and politics in Britain, with particular emphasis on political parties and pressure groups, the changing role of the legislature and executive, and the Public Corporations. The issues of current constitutional interest will be discussed, such as the office of Prime Minister and Parliamentary sovereignty.

POLITICAL SCIENCE C332
African Government and Politics (6 credits)
The government and politics of African states south of the Sahara, with reference to traditional political systems, colonial policies, nationalism, and the problem of nation building.

POLITICAL SCIENCE C333
The Government and Politics of the Soviet Union (3 credits)
A study of the government and politics of the Soviet Union. Discussion of the basic theories of Communism and the evolution of the Soviet System.

POLITICAL SCIENCE C334
Women and the Law (6 credits)
Prerequisite: POLI C200 or equivalent. An historical comparative study of the status of women as seen in different legal systems. The course will deal with women in relation to private, family, and public law. The framework will be primarily legal, but will also include a consideration of the social and political implications of women's legal status. Special attention to be directed to Quebec and Canadian law.

POLITICAL SCIENCE C335
Contemporary Politics of China (3 credits)
An analysis of the political development of and change in China since the triumph of Communism in China, with special emphasis on the role of the CCP, mass mobilization and prospect, and influence on Asia and world politics.

POLITICAL SCIENCE C336
Urban Politics (6 credits)
Prerequisite: POLI C200 or C250. A course in the problems and prospects in urban politics, with special emphasis on the processes of the local community. This course, although dealing primarily with urban politics in Canada, will go beyond national boundaries for its comparative treatment.

POLITICAL SCIENCE C337
Contemporary Politics of Japan (3 credits)
An analysis of the political change in and development of Japan since the end of World War II, with special emphasis on the reorientation of Japan, characteristics of Japanese modernization and of post-industrial politics, problems of national post-industrial politics, problems of national security and constitutional pacifism, and influence on Asia and world politics.

POLITICAL SCIENCE C339
Mid-East Political Systems I (3 credits)
A comparative study of the government and politics of Arab North Africa, namely Egypt, Libya, Tunisia, Morocco, Algeria and the Sudan. A link between these and other Middle Eastern Governments will be made.

POLITICAL SCIENCE C341
Mid-East Political Systems II (3 credits)
A comparative study of the government and politics of the Arabian Peninsula, the states of Iraq, Syria, Lebanon, Jordan, Israel, Turkey and Iran. A link between these and the North African Arab states will be made.

POLITICAL SCIENCE C350
Canadian Public Law (6 credits)
This course is an introduction to Canadian Public Law, emphasizing such areas as constitutional law, criminal law, administrative law, applications for bail, and consumer protection. In addition, the course will involve a study of the organization and functioning of the court system.

POLITICAL SCIENCE C351
Canadian Federalism (3 credits)
Prerequisite: POLI C250. A critical and analytical study of the theory of federal government and its application to the nature, principles, and techniques of federalism in Canada. The reaction of the Canadian federal system to the demands of cultural dualism and regional pressures. Some attention will also be given to the problems of provincial governments and Federal-Provincial relations.

POLITICAL SCIENCE C352
Canadian Parties, Interest Groups, and Public Opinion (6 credits)
Prerequisite: POLI C250. An examination of the functions of parties and interest groups, with an emphasis on political socialization, ideology, political recruitment, and leadership selection. Attention will also be given to the formulation and expression of public opinion and its impact on public policy.

POLITICAL SCIENCE C353
Quebec Politics (3 credits)
Prerequisite: POLI C250. A study of the changing party structure and political issues in Quebec and their relationship to constitutional, cultural, and economic factors.

POLITICAL SCIENCE C355
Nationalism: The Canadian Experience (3 credits)
Prerequisite: POLI C250, or permission of the Department. Examines the origins and development of nationalism and regionalism in Canada, with particular attention centered upon the interaction between French-Canadian and English-Canadian nationalist sentiments. Considers the similarities and divergencies of nationalist and regionalist sentiment in Canada with those of European nationalism, and evaluates their significance with regard to the development of the Canadian federation and its capacity to confront the realities and demands of the modern technological environment.

POLITICAL SCIENCE C357
Social and Political Power in Canadian Society (3 credits)
Prerequisite: POLI C250. An analysis of power and influence in Canadian society.

The course will review theoretical approaches to the study of political power and influence leading to an examination of such key determinants of power as social class, elites, and economic structures in Canada.

POLITICAL SCIENCE C360
Comparative Public Administration
(6 credits)
Concerned with the theories and maxims, as well as with the development of public administration. The student is introduced to issues such as the organization of governmental departments, budget policy, decision-making in government administration, personnel selection and training methods, as well as the application of efficiency ratings. There is, throughout, strong emphasis on attitudes and differences pertinent to the civil service in a selected group of countries.

POLITICAL SCIENCE C361
Government, Society and the Public Purpose (3 credits)
An examination of the broad social, economic, political and cultural forces shaping governmental decisions and policies. Particular attention will be paid to the conflict between private and public concerns.

POLITICAL SCIENCE C363
Issues in Canadian Public Policy (3 credits)
The course will examine alternative public policies in selected areas at the federal, provincial, and municipal levels in Canada, leading towards the development of individual research projects. Policies analyzed will vary from year to year and will include such areas as: social welfare policy, culture, education, and language policy; environmental protection, energy conservation, urban renewal, economic policy.

POLITICAL SCIENCE C365
Canadian Public Administration (3 credits)
Prerequisite: POLI C250, or permission of the Department. This course will examine the organization and composition of the federal bureaucracy, the role of the bureaucracy in the making and execution of public policy, patterns of recruitment, and the mechanisms of accountability to, and control over the behaviour of, these bodies.

POLITICAL SCIENCE C367
Quebec Public Administration (3 credits)
Prerequisite: POLI C250, or permission of the Department. This course will examine the organization and composition of the provincial bureaucracy, the role of Quebec civil servants in the making and execution of public policy, patterns of recruitment, and the mechanisms of accountability to, and control over the behaviour of, these bodies.

POLITICAL SCIENCE C369
Regionalism and Public Policy in Canada
(3 credits)
Prerequisite: POLI C250. An examination of the impact of regionalism on public policy in Canada with special emphasis on the problems of regional disparity and conflict. An historical analysis of national development policies and regional underdevelopment leads to a study of federal-provincial development strategies, and an assessment of alternative policies for the alleviation/elimination of regional disparities.

POLITICAL SCIENCE C370
Problems and Concepts in Political Theory
(6 credits)
Prerequisite: POLI C270, or C271 and C273. A course in political theory that examines central concepts in political thinking, such as liberty, equality, and power. The content of the course will include basic methodology and terminology to the extent that the thematic orientation in any given year may require its inclusion.

POLITICAL SCIENCE C371
Early Modern Political Philosophy
(3 credits)
The Reformation and rise of modern individualism. The principal political thinkers studied in this period will be Luther, Calvin, Bellarmine, Bodin, Hobbes, Harrington, Locke.

POLITICAL SCIENCE C372
Methodology of Political Science (6 credits)
A study of the contemporary subject matter and methods of political science. The course deals with: 1) fundamental concepts, principles, institutions, and processes of politics; 2) methods and techniques of the study of Politics, including an introduction to statistical analysis; 3) present approaches, such as functionalism, behaviourism, and practical laboratory periods.

POLITICAL SCIENCE C373
Late Modern Political Philosophy
(3 credits)
The Enlightenment and its critics, and the political thought of the early industrial period. The most important thinkers to be studied in this period are: de Montesquieu, Hume, Rousseau, Burke, J.S. Mill, and Marx.

POLITICAL SCIENCE C375
Nationalism: Origins, Operation, Significance (3 credits)
Examines the foundations of nationalist ideology developed originally in the early nineteenth century as a purely European phenomenon. Considers specific nationalist ideologies - European, African, Asian, etc., with regard to their modality of operation, and their significance in relation to a society's capacity to evolve and confront the demands, both internal and external, of the contemporary environment.

POLITICAL SCIENCE C377
Catholic Social and Political Thought
(3 credits)
An inquiry into contemporary Catholic social and political thought as stated in papal encyclicals; a broad survey of Catholic political activity as manifested in the European and Latin-American Christian Socialist and Christian Democratic movements and parties.

POLITICAL SCIENCE C381
Bureaucracy and Public Policy (3 credits)
Prerequisite: POLI C365 or C367. An examination of the expanding role of the federal or provincial bureaucracy in the development and implementation of public policy in Canada. Particular attention is devoted to the sources of increasing bureaucratic power and to the patterns of interaction among the cabinet, parliament and the bureaucracy.

POLITICAL SCIENCE C391
Selected Topics in Political Science I
(3 credits)
Prerequisite: Permission of the Department. The topic will vary with the special interest of the instructor conducting the course in any given year.

POLITICAL SCIENCE C393
Selected Topics in Political Science II
(3 credits)
Prerequisite: Permission of the Department. The selected topic will vary with the special interest of the instructor conducting the course in any given year.

POLITICAL SCIENCE C410
Seminar on Modern World Society
(6 credits)
Prerequisite: Permission of the Department. An advanced study of various concepts of the modern world society. Among the topics considered will be: the impact of technology on modern society and the problems it poses for international world order; the various theoretical models (i.e. federalist, functionalist, universal, culturalist) proposed to solve these problems and promote international order.

POLITICAL SCIENCE C411
Diplomacy (3 credits)
Prerequisite: At least 3 credits in International Affairs. A specialized course on the art of statesmanship and the practice of diplomacy. Among the topics covered will be: diplomatic intelligence and communication; protocol, rhetoric, and propaganda; negotiation techniques and treaty-making; informal consultations and conference diplomacy; conflict resolution and conciliation of national interests.

POLITICAL SCIENCE C413
Foreign Policy (3 credits)
Prerequisite: At least 3 credits in International Affairs. A specialized course analyzing the foreign-policy-making process. Among the topics covered will be: environmental influences; socio-economic factors; psychological images and ideologies; the national interest and foreign constraints; decision-making criteria; policy evaluation and feedback.

POLITICAL SCIENCE C415
International Justice (3 credits)
Prerequisite: At least 3 credits in International Affairs. A specialized course on the role of morality in world affairs. Among the topics covered will be: Human Rights and collective values; individual obligation and state responsibility; relativistic ethics and universal standards; natural law and equity; international stratification and inequality; international courts of justice and the legitimation of world order.

POLITICAL SCIENCE C417
Peace Studies (3 credits)
Prerequisite: At least 3 credits in International Affairs. A specialized course on the theory and practice of world peace. Among the topics covered will be: the causes of war and the conditions of peace; human aggression and the peace movement; structural violence and revolution; nationalism and cosmopolitanism; disarmament and peacekeeping.

POLITICAL SCIENCE C419
Strategic Studies (3 credits)
Prerequisite: At least 3 credits in International Affairs. A specialized course in power politics and defence policy. Among the topics covered will be: balance of power and collective security; military alliances and spheres of influence; the East-West cold war and détente; theories of geopolitics and imperialism; nuclear weapons and the arms race; deterrence and game theory.

POLITICAL SCIENCE C421
Transnational Politics (3 credits)
Prerequisite: At least 3 credits in International Affairs. A specialized course in international socio-economic relations. Among the topics covered will be: the North-South confrontation and the New International Economic Order; multi-national corporations and non-governmental organizations; the Third World and the politics of development; economic interdependence and self-reliance; political influence of trade, aid, and investment; natural resources and the limits to growth.

POLITICAL SCIENCE C430
Comparative Political Parties (6 credits)
A study of the history, ideology, and organization of a selected number of countries representing different political systems.

POLITICAL SCIENCE C432
Seminar on Western Political Systems
(6 credits)
A seminar on the political systems of western Europe and North America.

POLITICAL SCIENCE C434
Seminar on Asian Political Systems
(6 credits)
A discussion of selected themes - nationalism, communism, process of modernization and/or Asian political institutions, political forces and foreign policies. The topics may vary from year to year depending upon the interests of the instructor.

POLITICAL SCIENCE C436
Seminar on Politics of East Europe
(6 credits)
A study of selected problems of government in the Soviet Union and Eastern Europe.

POLITICAL SCIENCE C438
Honours Tutorial (6 credits)
Prerequisite: Third-year Honours standing. Students will choose an area of study from one of the various fields in Political Science and, under the guidance of a Faculty supervisor, prepare and submit an appropriate Honours research paper.

POLITICAL SCIENCE C450
Seminar on Quebec Government and Politics (6 credits)
Prerequisite: POLI C250 or C353. An institutional and functional survey of the executive, legislative, judicial, and administrative branches of the Quebec government. A detailed study of Quebec's jurisdictional and fiscal problems with the federal government. Discussion on the political process in Quebec; the electoral system, political parties, pressure groups, and public opinion. The role of the Catholic Church in Quebec politics. A study of the most important thinkers in French Canada.

POLITICAL SCIENCE C451
Canadian External Affairs (3 credits)
Prerequisite: POLI C210 or C250. This course will study Canada's position in the world. The presentation will include an outline of the diplomatic history of Canada, as well as an analysis of its foreign and defence policies. Emphasis will be given to the decision-making process by which policy is formulated and executed, with particular reference to Canadian relations vis-à-vis the United States, the Commonwealth, and the United Nations.

POLITICAL SCIENCE C452
Intergovernmental Relations in Canada (6 credits)
Prerequisite: POLI C250. An examination of the structure and process of relations among the feral, provincial and municipal levels of government. Particular attention is on the development and administration of shared programmes and the problems of intergovernmental cooperation.

POLITICAL SCIENCE C453
The Provinces in Canadian Federalism (3 credits)
Prerequisite: POLI C250. An analysis of regional political cultures in Canada; the development of provincial parties and public administrations; the rise of third parties; electoral behaviour and provincial public opinion.

POLITICAL SCIENCE C454
Seminar on Legislative, Executive, and Judicial Decision-Making (6 credits)
Prerequisite: POLI C250. An examination of formation of decisions in the legislative, executive, and judicial branches of government, using Canada as the model.

POLITICAL SCIENCE C461
The State and Economic Life (3 credits)
Prerequisite: POLI C250 or C361. An examination of the development of the welfare state and the forces contributing to the expansion of government intervention in the economy. Particular attention is devoted to the causal interdependence among values, political power, wealth, the general pattern of social stratification, and economic development.
NOTE: Students who have received credit for POLI C460 may not take this course for credits.

POLITICAL SCIENCE C462
Seminar on Comparative Public Policy (6 credits)
Prerequisite: POLI C361 and C363. A comparative analysis of some of the major policy problems confronting industrially advanced societies. The aim is to understand how similar problems are approached by different political systems.

POLITICAL SCIENCE C463
Government and Business in Canada (3 credits)
Prerequisite: POLI C250 or C361. A course in public policy designed to explore the relationship between government and business in Canada. Particular attention will be given to the formation and implementation of policies intended to promote and control enterprise and the role of government as entrepreneur.
NOTE: Students who have received credit for POLI C460 may not take this course for credits.

POLITICAL SCIENCE C465
Analysis and Evaluation of Public Policy (3 credits)
Prerequisite: POLI C361. An advanced study of the various theoretical approaches to policy planning, evaluation and analysis and of the various conceptual, methodological and ethical issues emergent in the evaluation of governmental policy performance.

POLITICAL SCIENCE C470
Contemporary Political Thought (6 credits)
Prerequisite: POLI C270 or C271, and C273 or C371 and C373. A study of the most important political thinkers and the main currents of political thought in the past century.

POLITICAL SCIENCE C471
Political Thought and Ideology in Canada (3 credits)
A study of the writings of the most significant political and social thinkers in Canada, and of the main ideological orientations in Canadian politics.

POLITICAL SCIENCE C472
Seminar on Communications and Politics (6 credits)
Prerequisite: Permission of the Department. This course will include communication and national unity, communications and social mobilization, politics and the mass media, the use of political symbols, communication, and authority, and the "Canadian School" of culture and communications, based on the ideas of Harold Innis.

POLITICAL SCIENCE C473
Seminar on Political Theory and Historical Understanding (3 credits)
Prerequisite: POLI C270; or C271 and C273; or C371 and C373. An advanced seminar on the relation between historical understanding and political thought.

POLITICAL SCIENCE C474
Seminar on Political Theory and Scientific Method (6 credits)
Prerequisite: POLI C270; or C271 and C273; or C371 and C373. An advanced seminar on the problems of applying scientific method in the study of politics.

POLITICAL SCIENCE C475
Marxism (3 credits)
Prerequisite: POLI C270; or C271 and C273; or C371 and C373. A critical examination of the major texts of Marx and Engels, and a study of representative selections of Marxist thinkers chosen from among the following: Kautsky, Plekhanov, Lenin, Luxemburg, Trotsky, Stalin, Lukacs, Gramsci, Althusser, Mao.

POLITICAL SCIENCE C490
Advanced Topics in Political Science (6 credits)
Prerequisite: Permission of the Department. This course is designed primarily for Honours students. Its purpose is to provide an opportunity for students to intensify their study beyond the areas of specialization already represented in the curriculum. The topic will vary with the special interest of the instructor conducting the course.

POLITICAL SCIENCE C492
Advanced Study in a Special Subject
(6 credits)

Prerequisite: 6 credits in Political Science and enrolment in a Major or Honours programme in the Social Sciences. Subject matter will vary from year to year depending on the interests of the instructor. This course will provide opportunities to senior students for discussion and advanced study.

POLITICAL SCIENCE C494
Advanced Study in a Special Subject
(6 credits)

Prerequisite: POLI C492 and permission of the Department. A student who has received credit for POLI C492 may register for POLI C494 provided the subject matter is different.

POLITICAL SCIENCE C495
Advanced Study in a Special Subject
(3 credits)

Prerequisite: 6 credits in Political Science and enrolment in a Major or Honours programme in the Social Sciences, or permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the instructor. This course will provide opportunities to senior students for discussion and advanced study.

POLITICAL SCIENCE C497
Advanced Study in a Special Subject
(3 credits)

Prerequisite: POLI C495 and permission of the Department. A student who has received credit for POLI C495 may register for POLI C497 provided the subject matter is different.

31.250 Psychology

Chairman
T. ARBUCKLE-MAAG, *Professor*

Professors
Z. AMIT
D. GOLD
H. LADD
C. PERRY
A. SCHWARTZMAN
J. STEWART
R.A. WISE

Associate Professors
D. ANDRES
P. BABARIK
J.H. BAUER
W. BRENDER
G. BRETON
M. BROSS
E. BRUSSELL
J.S. CHAIKELSON
A.B. DOYLE
T. GRAY
A. HILTON
W.R. HOOPER
M.K. KOMODA
R.M. LAMBERT
V. MAHEUX
R.D. SEENS
N. SEGALOWITZ
P. SERAGANIAN
L. SERBIN
M.L. SHAMES
P. SHIZGAL
N. TAYLOR
C. WHITE

Associate Professor of Applied Social Science and Psychology
D. HACCOUN

Associate Professor of Education and Psychology
D. WHITE

Assistant Professors
J. BARIBEAU
E. HENRIK
D. KALOUPEK
E. MOULEDOUX
B. WOODSIDE

Adjunct Associate Professor
A. SUTHERLAND

Adjunct Assistant Professors
C. BERGER
S. BURSTEIN
H. FRANK
E. LIBMAN
G. NEMETH
A. PUTTERMAN

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students must apply to the Departmental Honours Adviser for formal admission to Honours Programmes. The application is usually made after completion of the first-year courses.

Students seeking admission to the Honours programme on or after June 1, 1977 will be bound by the Honours requirements outlined in *16.2.4 of this calendar.

Students who already had Honours status by June 1, 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

For additional information concerning programmes and courses, students should consult the course guide published annually by the Department.

66 BA Honours in Psychology

Year I
6 PSYC C310^3, C311^3
3 PSYC C315^3 concurrently with C310^3
3 PSYC C316^3 concurrently with C311^3
6 PSYC C320^6

Years II and III
6 PSYC C345^6 or C348^6 or C351^6
6 PSYC C357^6 or C360^6 or C363^6 or C366^6
12 Chosen from PSYC C330^6, C333^6, C336^6, C339^6, C342^6
12 Department-approved Psychology electives at '300' or '400' level

Year III
6 PSYC C420^6
6 PSYC C430^6

66 BSc Honours in Psychology

Year I
6 PSYC C310^3, C315^3 concurrently
6 PSYC C311^3, C316^3 concurrently

Years I and II
6 PSYC C320^6
12 Chosen from PSYC C357^6, C360^6, C363^6, C366^6, C369^3, C381^3, C384^3

Years II and III
6 Chosen from PSYC C345^6, C348^6, C351^6
6 Chosen from PSYC C330^6, C333^6, C336^6, C339^6, C342^6
12 Psychology electives at '300' or '400' level selected in consultation with a psychology programme adviser

Year III
6 PSYC C420^6
6 PSYC C430^6

NOTE: In addition students must take a minimum of 15 science credits outside the department selected in consultation with the Psychology programme adviser.

Psychobiology Option
Students wishing to do BSc Honours (Psychobiology Option)

must take PSYC C357 or C360 as part of their Psychology programme.
To complete the option students will select 21 credits in Chemistry and Biology from the courses listed below. Fifteen of these credits will replace the 15 outside credits of science electives and up to 6 of these credits may be substituted for 6 credits of Psychology electives.

Year I

6 CHEM C221[6] or BIOL C222[6]
3 BIOL C230[3]

Year II

6 CHEM C372[3], C373[3] or BIOL C333[6]
6 Chosen from BIOL C260[6], C321[3], C335[3], C336[3], C363[3], C364[3], C365[3], C462[3], CHEM C475[3], C476[3]

60 BA Specialization in Psychology

Year I

6 PSYC C310[3], C311[3]
3 PSYC C315[3] concurrently with C310[3]
3 PSYC C316[3] concurrently with C311[3]
6 PSYC C320[6]

Years II and III

6 PSYC C345[6] or C348[6] or C351[6]
6 PSYC C357[6] or C360[6] or C363[6] or C366[6]
12 Chosen from PSYC C330[6], C333[6], C336[6], C339[6], C342[6]
18 Department-approved Psychology electives at '300' or '400' level.

60 BSc Specialization in Psychology

Year I

6 PSYC C310[3] and 315[3] concurrently
6 PSYC C311[3] and C316[3] concurrently

Years I and II

6 PSYC C320[6]
12 Chosen from PSYC C357[6], C360[6], C363[6], C366[6], C369[3], C381[3], C384[3]

Years II and III

6 Chosen from PSYC C345[6], C348[6], C351[6]
6 Chosen from PSYC C330[6], C333[6], C336[6], C339[6], C342[6]
18 Psychology electives at the '300' and '400' level selected in consultation with the Psychology programme adviser.
In addition students must take a minimum of 15 science credits outside the department selected in consultation with the Psychology programme adviser.

Psychobiology Option
Students wishing to do BSc Specialization (Psychobiology Option) must take PSYC C357 or C360 as part of their Psychology programme.
To complete the option students will select 21 credits in Chemistry and Biology from the courses listed below. Fifteen of these credits will replace the 15 outside credits of science electives and up to 6 of these credits may be substituted for 6 credits of Psychology electives.

Year I

6 CHEM C221[6] or BIOL C222[6]
3 BIOL C230[3]

Year II

6 CHEM C372[3], C373[3] or BIOL C333[6]
6 Chosen from BIOL C260[6], C321[3], C335[3], C336[3], C363[3], C364[3], C365[3], C462[3], CHEM C475[3], C476[3]

42 BA Major in Psychology

Year I

6 PSYC C310[3], C311[3]
3 PSYC C315[3] concurrently with C310[3]
6 PSYC C320[6]

Years II and III

A total of 18 credits to be taken from the following two sets of courses:
6-12 Chosen from PSYC C345[6], C348[6], C351[6], C357[6], C360[6] (or C363[6]), C366[6]
6-12 Chosen from PSYC C330[6], C333[6], C336[6], C339[6], C342[6]
9 Department-approved Psychology electives at '300' or '400' level

42 BSc Major in Psychology

Year I

6 PSYC C310[3], C311[3]
3 PSYC C315[3] concurrently with C310[3]
6 PSYC C320[6]

Years II and III

6 PSYC C357[6] or C360[6] or C363[6]
12 Chosen from PSYC C342[6], C345[6], C348[6], C351[6], C366[6], C381[3], C384[3]
9 Department-approved Psychology electives at '300' or '400' level

30 Minor in Psychology

Year I

3 PSYC C310[3]
3 PSYC C315[3] concurrently with C310[3]
6 PSYC C320[6]

Years II and III

12 Chosen from PSYC C330[6], C333[6], C336[6], C339[6], C342[6], C345[6], C348[6], C351[6], C357[6], C366[6]
6 Department-approved Psychology electives at '300' or '400' level

NOTE: Students in programmes leading to the B.Sc. degree may take for credits to be applied to their programme of concentration any 300- or 400-level course in Psychology except PSYC C320, C390-394.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

PSYCHOLOGY C200
Introductory Psychology (6 credits)

This comprehensive survey course will introduce the student to the phenomena and terminology encountered in a number of areas of scientific psychology. Topics covered include basic mechanisms of the receptors and nervous system, memory, motivation, perception, learning, abnormal psychology, personality, cognition, and social aspects of behaviour.

NOTE 1: Students who have credit for or exemption from Introductory Psychology at CEGEP or elsewhere may not take this course for credit.

NOTE 2: Students who have credit for PSYC C200 or equivalent may not take MANA C213 for credit.

SELECTED TOPICS IN PSYCHOLOGY

The following 3-credit courses, numbered at the '200' level, are designed as elective courses for students who are not registered in a psychology programme. The particular topic covered will vary from session to session and from campus to campus. The material will be dealt with in a manner appropriate to students who have little or no formal background in psychology. Students registered in a psychology programme will not normally take these courses for credit. It is not possible to offer topics in all the subject areas each session. Students should see the Psychology Department Course Guide (published yearly) to ascertain which topics are available in each session.

PSYCHOLOGY C220
Selected Topics in Developmental Psychology A (3 credits)

PSYCHOLOGY C221
Selected Topics in Developmental Psychology B (3 credits)3
PSYCHOLOGY C222
Selected Topics in Social Psychology A (3 credits)

PSYCHOLOGY C223
Selected Topics in Social Psychology B (3 credits)

PSYCHOLOGY C224
Selected Topics in Individual Differences A (3 credits)

PSYCHOLOGY C225
Selected Topics in Individual Differences B (3 credits)

PSYCHOLOGY C226
Selected Topics in Personality A (3 credits)

PSYCHOLOGY C227
Selected Topics in Personality B (3 credits)

PSYCHOLOGY C228
Selected Topics in the Application of Psychology A (3 credits)

PSYCHOLOGY C229
Selected Topics in the Application of Psychology B (3 credits)

PSYCHOLOGY C230
Selected Topics in Learning and Motivation A (3 credits)

PSYCHOLOGY C231
Selected Topics in Learning and Motivation B(3 credits)

PSYCHOLOGY C232
Selected Topics in Sensory and Perceptual Processes A (3 credits)

PSYCHOLOGY C233
Selected Topics in Sensory and Perceptual Processes B (3 credits)

PSYCHOLOGY C234
Selected Topics in Cognitive Processes A (3 credits)

PSYCHOLOGY C235
Selected Topics in Cognitive Processes B (3 credits)

PSYCHOLOGY C236
Selected Topics in Physiological Psychology A (3 credits)

PSYCHOLOGY C237
Selected Topics in Physiological Psychology B (3 credits)

PSYCHOLOGY C280
Adolescence (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course will deal with various aspects of adolescence including such topics as physical change, sexual and sex-related behaviours, cognitive growth and lifestyles.

NOTE: This course is intended for students not enrolled in psychology programmes. Students who have credit for PSYC C379 or C391 may not take this course for credits.

PSYCHOLOGY C281
Learning Disabilities (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course will deal with selected aspects of theory and practice related to learning disabilities including perceptual and motor disabilities, language disabilities and methods of diagnosis and remediation.

NOTE: This course is intended for students not enrolled in psychology programmes. Students who have credit for PSYC C377 or C392 may not take this course for credits.

PSYCHOLOGY C283
Emotional Development (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course focuses on emotional development in childhood. Topics that may be considered include prenatal and genetic influences on emotion, attachment formation, effects of alternative child care, role of father and poverty. The normal development of anxiety, fear and affection will be discussed.

NOTE: This course is intended primarily for students in the Family Life Education Certificate programme (Department of Applied Social Science).

NOTE: Students who have credit for PSYC C220, Sec. A or B (1980-81); Sec. B (1981-82); or Sec. A (1982-83) may not take this course for credits.

PSYCHOLOGY C284
Socialization (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course examines socialization processes during infancy, childhood and adolescence. The effects on socialization of factors such as family structure, disciplinary techniques and social class will be considered. The development of social skills, morality, prosocial behaviour and agression will be examined.

NOTE: This course is intended primarily for students in the Family Life Education Certificate programme (Department of Applied Social Science.)

NOTE: Students who have credit for PSYC C221, Sec. B or C (1980-81); Sec. A (1981-82); or Sec. A (1982-83) may not take this course for credits.

PSYCHOLOGY C286
Psychology of Leisure (3 credits)

Prerequisite: Introductory Psychology or equivalent. This course explores the rapidly developing psychologically oriented theory and research on leisure and its meaning and importance for the individual. Topics that

may be considered include motivation for leisure activities, planning for leisure and/or retirement, therapeutic value of leisure, new conceptions of work and leisure, leisure and self-development.

NOTE: Students who have credit for PSYC C222, Sec. 60 (1981), Sec. 02 (1981-82) or for Sec. 51 (1982-83), or for PSYC C223, Sec. 60 (1982) may not take this course for credits.

PSYCHOLOGY C310
Research Methods in Experimental Psychology I (3 credits)

Prerequisite: Introductory Psychology or equivalent; PSYC C315 to be taken concurrently. An examination of the experimental method in psychology. Students will complete experimental projects to acquaint themselves with procedures in various areas of psychology, such as perception, learning, and motivation. Statistical procedures for analysis of the results of the experiments will be presented in the concurrently taught course in psychological statistics. Lectures and laboratory.

PSYCHOLOGY C311
Research Methods in Experimental Psychology II (3 credits)

Prerequisite: PSYC C310 and C315. This course will build on the experience gained in PSYC C310 and C315. It will be devoted to a critical examination of more complex designs used in psychology. Students will be required to conduct and evaluate experiments. An opportunity will be provided for them to undertake a supervised research project.

PSYCHOLOGY C312
Field Research Methodology (3 credits)

Prerequisite: PSYC C310 and C315. This course will deal with techniques for studying complex behaviour in non-laboratory settings. Topics such as the neutrality or invisibility of the observers, participant observation, categorization, and recording problems may be studied. The relationship between laboratory findings and findings from the non-laboratory setting will be considered.

PSYCHOLOGY C315
Statistical Analysis in Experimental Psychology I (3 credits)

Prerequisite: Three approved credits in Mathematics at CEGEP or university; PSYC C310 to be taken concurrently. This course is an introduction to statistics, presented in an experimental psychology context. Topics dealt with include frequency distributions, measures of central tendency and dispersion, the normal curve, correlation, elementary probability theory, an introduction to hypothesis testing, and the *t* test. These topics are coordinated with the laboratory projects in Research Methods I which must be taken concurrently. *NOTE See §200.7*

PSYCHOLOGY C316
Statistical Analysis in Experimental Psychology II (3 credits)

Prerequisite: PSYC C310 and C315. This course builds on the experience derived from PSYC C310 and C315 to advance the student's understanding of hypothesis testing and statistical inferences. The material dealt with will include non-parametric statistics, the chi-square and F-distribution, introductory analysis of variance, and various correlational techniques. *NOTE See §200.7*

PSYCHOLOGY C317
Introductory Statistical Methods in Psychology (6 credits)

Prerequisite: Any two CEGEP courses in Mathematics. Topics dealt with include frequency distributions, measures of central tendency and dispersion, correlation and regression, elementary probability theory, the binomial and normal distributions, sampling and statistical inference, simple analysis of variance, miscellaneous non-parametric techniques. Lectures and laboratory. Only 6 credits will be recognized from PSYC C315, C316, or C317. *NOTE See §200.7*

PSYCHOLOGY C318
Advanced Statistical Methods in Psychology (6 credits)

Prerequisite: PSYC C315 and C316, or C317 or equivalent. The course is intended for students who already possess some background in statistics. Knowledge of elementary descriptive and inferential statistics will be assumed. The course will cover topics such as advanced analysis of variance designs, introductory multivariate analysis, advanced topics in correlation, and regression.

PSYCHOLOGY C320
Modern Psychology in Historical Perspective (6 credits)

Prerequisite: Introductory Psychology or equivalent. The course deals with the historical background of psychology from ancient and medieval times up to the present. Early contributions to psychology from the fields of philosophy, physics, physiology, and psychophysics are presented and related to the various schools of psychological thought from the late nineteenth century to the modern era.

PSYCHOLOGY C330
Developmental Psychology (6 credits)

Prerequisite: PSYC C310 and C315. Basic findings and contemporary issues concerned with human cognition, social and emotional development are considered. The course deals with a variety of topics such as the behavioural organization and competence of the new-born, relationships in the pre-school period, effects of different early environments, Piaget's theory of cognitive development.

PSYCHOLOGY C333
Social Psychology (6 credits)

Prerequisite: PSYC C310 and C315. The behaviour of the individual as a member of a larger grouping or society will be dealt with. The study of the social influences on individuals or groups will involve consideration of topics such as attitude change and development, intragroup communication and problem solving, leadership, prejudice, development of social movements, and cults.

PSYCHOLOGY C336
Personality: Normal and Abnormal (6 credits)

Prerequisite: PSYC C310 and C315. The organization, functioning, and development of personality will be discussed according to major theories of personality. Evidence from experimental studies and field findings are discussed. Socio-economic, cultural, and biological system factors may also be considered.

PSYCHOLOGY C339
Behaviour Disorders (6 credits)
Prerequisite: PSYC C310 and C315. The course will deal with contemporary research and theory related to the aetiology, diagnosis, and treatment of various psychological disorders. Psychoneuroses, psychoses, and psychosomatic conditions will be studied. Social, learning, and biological influences on the development of such disorders as schizophrenia, depression, anxiety neuroses, and phobias will be discussed.

PSYCHOLOGY C342
Motivation (6 credits)
Prerequisite: PSYC C310 and C315. Contemporary theory and empirical research concerned with factors related to the initiation and maintenance of goal-directed behaviour will be reviewed and evaluated. Research findings from human and sub-human studies in such areas as hunger, sleep, sex, agression, cooperation, and competition may be presented and evaluated.

PSYCHOLOGY C345
Learning (6 credits)
Prerequisite: PSYC C310 and C315. Current theories and research findings concerning the basic mechanisms of learning are considered. The current status of the Pavlovian and instrumental conditioning paradigms will be reviewed from behavioural and cognitive viewpoints. Topics such as the mechanisms of reinforcement, cognitive versus associative theories of conditioning, memory, and control of autonomic nervous system responses will be dealt with.

PSYCHOLOGY C348
Sensory and Perceptual Processes
(6 credits)
Prerequisite: PSYC C310 and C315. Physiological and psychological bases of sensory and perceptual phenomena will be discussed. Topics such as pitch perception, colour vision, perception of movement, size, and distance are included. The areas of sensation and perception are integrated through a human information-processing approach to the understanding of auditory and visual phenomena.

PSYCHOLOGY C351
Cognitive Processes (6 credits)
Prerequisite: PSYC C310 and C315. The course will involve a study of the processes involved in thought and language. Possible topics for discussion are: cognitive development, psycholinguistics, pattern recognition, organization and memory, attention, problem solving and concept formation, and creativity.

PSYCHOLOGY C354
Mathematical Theories of Behaviour
(6 credits)
Prerequisite: PSYC C310 and C315. The course will survey applications of mathematical techniques to problems of psychology in such areas as motivation, learning, decision making, sensory psychophysics, and perception. Students enrolling in this course should have a mastery of elementary probability theory and should be confident of their ability to deal with elementary calculus, algebra, and logic.

PSYCHOLOGY C357
Physiological Psychology (6 credits)
Prerequisite: PSYC C310 and C315, or 9 credits in CEGEP-level Chemistry and Biology courses or permission of the Department. This course deals with current theory and research concerning the neural and humoral bases of behaviour. The biological bases of behaviour will be clarified through study of such topics as the function of nerve cells and circuits, brain-hormone interactions, physiological mechanisms of sensation, perception, memory, and coordinated movement.

PSYCHOLOGY C360
Brain Chemistry and Behaviour (6 credits)
Prerequisite: PSYC C310 and C315, or 9 credits in CEGEP-level Chemistry and Biology courses or permission of the Department. Neural systems will be classified in terms of their different chemical transmitter substances. The mechanisms of hunger, thirst, pain, reward, drug abuse, and the neurochemical basis of disorders such as schizophrenia, depression, and Huntingdon's Chorea may be discussed. Methods for the identification and selective stimulation and destruction of the various systems are included.

PSYCHOLOGY C361
Psychology of Drug Dependence
(3 credits)
Prerequisite: PSYC C310 and C315, or 6 credits from among PSYC C357, C360 or C363, or permission of the Department. This course will focus on the behavioural and pharmacological mechanisms underlying the phenomenon of drug dependence. Concepts such as physical and psychological dependence, tolerance, reinforcement and aversion will be discussed. In addition the role of these concepts in the development of new treatment procedures will be assessed.

PSYCHOLOGY C363
Neuroanatomical Bases of Behaviour
(6 credits)
Prerequisite: PSYC C310 and C315, or 9 credits in CEGEP-level Chemistry and Biology courses or permission of the Department. Major emphasis is given towards gaining a knowledge of the structural anatomy and functions of the human central nervous system. Neurological mechanisms subserving human motives, emotions, language, visual-spatial perceptions, etc., will be examined. Research related to both animal and human neuropathology will be considered.

PSYCHOLOGY C364
Introduction to Behavioural Medicine
(6 credits)
Prerequisite: PSYC C310 and C315 or 6 credits from among PSYC C357, C360 or C363. This course surveys some of the areas dealt with by psychologists who conduct research or provide clinical services relating to physical health. The structure of the course reflects the growing recognition that psychological factors can be of major importance for both the development and eventual treatment of physical disorders. The course will introduce students to the history and basic concepts of the field and will cover psychological aspects of the etiology and treatment of such problems as pain and headache, substance abuse, anxiety and stress, cardiovascular disorders, sexual dysfunction. In discussing treatment emphasis will be placed on psychologically-based procedures, though somatic interventions (e.g. medication, diet

and surgery) will also be reviewed at a level appropriate to the non-medical nature of the course.

PSYCHOLOGY C366
Animal Behaviour (6 credits)
Prerequisite: PSYC C310 and C315, or 9 credits in CEGEP-level Chemistry and Biology courses or permission of the Department. The study of animal behaviour will be approached from the point of view of sociobiology, ethology, and comparative psychology. Research findings from the experimental laboratory and from studies of animals in their natural environment will be discussed. A study of genetic and evolutionary aspects of behaviour is intrinsic to the course.

PSYCHOLOGY C369
Hormones and Behaviour (3 credits)
Prerequisite: PSYC C310 and C315. The course deals with the role of hormones in integrating the activity of various neural, endocrine, and sensory systems to bring about organized, purposeful behaviour. Topics discussed include the reproductive, sexual, or environmentally adaptive systems, with treatment of material ranging from the molecular to the behavioural level.

PSYCHOLOGY C372
Psychology of Physical Activity (6 credits)
Prerequisite: PSYC C310 and C315 or permission of the Department. The relationship between physical and psychological well-being is systematically explored. Topics that may be dealt with include philosophical roots of the mind - body problem, the structural and metabolic basis of both emotional expression and physical activity, the role of aerobic fitness level in altering emotional reaction patterns.

PSYCHOLOGY C375
Industrial and Organizational Psychology (6 credits)
Prerequisite: PSYC C310 and C315. A systematic examination of current research and theory about human behaviour as it occurs in the context of work organizations. Possible topics are: motivation to work, communication in organizations, career development, and systems approach to conceptualizing the social psychology of organizations.

PSYCHOLOGY C377
Abnormal Development (3 credits)
Prerequisite: PSYC C310 and C315; 6 credits from among PSYC C330, C336, C339 previously or concurrently, or permission of the Department. This course will cover major theoretical and applied issues in abnormal child development. Topics covered may include gender and sex-role-related problems, anxiety and fear-related problems, conduct disorders and delinquency, childhood anorexia and obesity, hyperactivity and attentional disorders, learning and school-related problems, mental retardation, and childhood psychosis.

PSYCHOLOGY C378
Learning in the Classroom (6 credits)
Prerequisite: PSYC C310 and C315. A systematic examination of psychological principles and research reports that contribute to an understanding of learning in the school.

PSYCHOLOGY C379
Adolescent Development (3 credits)
Prerequisite: PSYC C310 and C315; 6 credits from among PSYC C330, C336, C342 or C351 previously or concurrently. This course examines the physical, cognitive and motivational changes in puberty and early adolescence, their underlying mechanisms, interrelations and behavioural effects. Topics that may be covered include effects of early and late pubertal onset, parent and peer relations, sex differences and sex roles, and identity issues.

PSYCHOLOGY C380
Psychology of Aging (3 credits)
Prerequisite: PSYC C310 and C315; 6 credits from among PSYC C330, C333, C336, C342 or C351 previously or concurrently. This course examines psychological development during the later phases of life. The material covered includes methodological issues in the study of aging as well as research findings in such areas as adjustment and well-being, coping styles and stress, age-related changes in memory and learning, the impact of social and family variables on aging, and health and medical issues related to the elderly.

PSYCHOLOGY C381
Scaling (3 credits)
Prerequisite: PSYC C310 and C315. The theoretical basis and application of scaling methods in psychophysics and social psychology will be studied. Quantitative scales for the measurement of attitudes and sensations will be derived and constructed. Other topics that may be covered include subjective estimate methods, the law of comparative judgement, unfolding techniques, and signal detection theory.

PSYCHOLOGY C384
Measurement (3 credits)
Prerequisite: PSYC C310 and C315. A consideration of the general theory of psychological measurement and its application in the development and use of various psychometric instruments such as achievement, intelligence, aptitude, personality, and interest tests. Derived scores, norms, reliability, and validity of these instruments will be discussed in the context of general measurement problems in psychology.

PSYCHOLOGY C390
Sexual Differentiation (6 credits)
Prerequisite: PSYC C310 and C315, or Introductory Psychology and second-year standing in any degree programme in Arts and Science or enrolment in the Family Life Education Certificate, or permission of the Department. The genetic, hormonal, and social influences shaping the behaviour of men and women from embryonic life through adulthood are examined. Topics discussed include gender identity, sexuality, aggression, and cognitive abilities. The course, primarily approached from the point of view of women, includes an exploration of some of the myths surrounding the differences between men and women.

PSYCHOLOGY C393
Psychology of Language and Communication (6 credits)
Prerequisite: PSYC C310 and C315, or a minimum of three credits from among TESL C211, LING C200, FRAN C381 or COMS

C240 or permission of the Department. The course deals with the cognitive, developmental, and social aspects of language and human communication. Topics discussed may include psychological consideration of modern linguistic theories, child language development, second-language development in chidren and adults, speech perception, biological basis of language, social psychological aspects of human communication.

PSYCHOLOGY C394
Community Psychology (6 credits)
Prerequisite: PSYC C310 and C315; or Introductory Psychology and second-year standing in any degree programme in Arts and Science, or permission of the Department. The course will relate psychology to the day-to-day problems of man in society. The contributions of psychology to community leadership in the study of personal, social, cultural, and ecological arrangements will be considered as they relate to such institutions as the family, school, prisons, health and welfare, and political structures.

SELECTED PROBLEMS IN PSYCHOLOGY
The following 3-credit courses are designed for students enrolled in a Psychology programme. The particular topics covered will vary from session to session and campus to campus. The material will be dealt with in a manner that assumes a background in experimental psychology and, in some cases, specific preparation through a prior completion of a related course. Only some of the problem areas will be available in a given session. Students should see the Psychology Department Course Guide (published yearly) for details concerning these courses.

PSYCHOLOGY C331
Selected Problems in Developmental Psychology A (3 credits)

PSYCHOLOGY C332
Selected Problems in Developmental Psychology B (3 credits)

PSYCHOLOGY C334
Selected Problems in Social Psychology A (3 credits)

PSYCHOLOGY C335
Selected Problems in Social Psychology B (3 credits)

PSYCHOLOGY C337
Selected Problems in Personality A (3 credits)

PSYCHOLOGY C338
Selected Problems in Personality B (3 credits)

PSYCHOLOGY C343
Selected Problems in Learning and Motivation A (3 credits)

PSYCHOLOGY C344
Selected Problems in Learning and Motivation B (3 credits)

PSYCHOLOGY C349
Selected Problems in Sensory and Perceptual Processes A (3 credits)

PSYCHOLOGY C350
Selected Problems in Sensory and Perceptual Processes B (3 credits)

PSYCHOLOGY C352
Selected Problems in Cognitive Processes A (3 credits)

PSYCHOLOGY C353
Selected Problems in Cognitive Processes B (3 credits)

PSYCHOLOGY C358
Selected Problems in Physiological Psychology A (3 credits)

PSYCHOLOGY C359
Selected Problems in Physiological Psychology B (3 credits)

PSYCHOLOGY C373
Selected Problems in the Application of Psychology A (3 credits)

PSYCHOLOGY C374
Selected Problems in the Application of Psychology B (3 credits)

PSYCHOLOGY C400
Advanced Experimental Psychology (6 credits)
Prerequisite: PSYC C310, C311, C315, C316 or equivalent, and permission of the Department. The course provides experience in the design, conduct, analysis, and reporting of independent research in the major areas of psychology. The research will be undertaken under the supervision of a Faculty member.

PSYCHOLOGY C410
Supervised Practicum in Psychology (6 credits)
Prerequisite: PSYC C310, C311, C315, and/or permission of the Department. A limited number of opportunities for gaining advanced practical experience in various institutional or field-work settings will be available. The student activities will be closely supervised by a qualified Faculty member.

PSYCHOLOGY C420
Honours Seminar (6 credits)
Prerequisite: Permission of the Department. Open to final-year Honours students. The seminar will deal, in depth, with the research and theory relevant to selected contemporary issues in psychology.

PSYCHOLOGY C430
Honours Thesis (6 credits)
Prerequisite: Permission of the Department. Open to final-year Honours students. This course will require the student to propose and conduct a study and submit a thesis written according to the APA format. The work will be supervised by a Thesis chairman selected by the student from within the Department.

PSYCHOLOGY C437
Directed Research in Psychology (3 credits)
Prerequisite: PSYC C310, C311, C315, C316 or equivalent, and permission of the Department. Under the supervision of a Faculty member, the student will carry out an independent research project and report it in writing. The area of study must be decided upon through consultation with the Faculty member.

PSYCHOLOGY C438
Directed Readings in Psychology
(6 credits)
Prerequisite: Acceptance by a supervisor and confirmation by the Department. This course is designed for the advanced student wishing to do independent, individually supervised literature research on a specific topic in psychology. This research will culminate in a written paper. Students should have a well-defined topic in mind before registering for this course.

PSYCHOLOGY C440
Special Advanced Seminar (3 credits)
Prerequisite: Prerequisite will vary according to the topic covered. Normally open to final-year Majors, Honours, or Specialization students. Various specialized topics will be dealt with in depth at an advanced level.

PSYCHOLOGY C441
Special Advanced Seminar (3 credits)
Students who have received credit for PSYC C440 may register for PSYC C441 provided the subject matter is different.

PSYCHOLOGY C442
Special Advanced Seminar (3 credits)
Prerequisite: Prerequisite will vary according to the topic covered. Normally open to final-year Majors, Honours, or Specialization students. Various specialized topics will be dealt with in depth at an advanced level.

PSYCHOLOGY C443
Special Advanced Seminar (3 credits)
Students who have received credit for PSYC C442 may register for PSYC C443 provided the subject matter is different.

31.260 Recreation and Leisure Studies

Director
R. SWEDBURG, *Associate Professor*

Recreation and leisure service meets a basic social and cultural need, and is concerned with the interrelationships among people in their environment. A great deal of money is poured into recreation and leisure at all governmental levels, leading to a pressing need for people to administer and develop programmes at the necessary standards of sophistication.

This programme attempts to fulfill this need and is offered to those students interested in a career in recreation and leisure services together with those students who foresee the increasing academic enquiry into the problems derived from recreation and leisure within the work ethic.

The primary focus is on managing, programming, counselling, and coordinating rather than instructing. The programme draws from the departments of Applied Social Science, Exercise Science, Psychology, Sociology and the Faculties of Commerce and Administration, and Fine Arts.

Requirements:

Both required and elected courses within the Social Science and Applied Recreation options should be chosen in consultation with the Director.

Additionally it will be required that students must maintain an overall average of 65% (1) to continue into the second and third years of their studies and (2) to graduate.

Students registered in the programme who are not fluent in French are strongly advised to use some of their elective credits in pursuit of French-language competence.

Upon completion of all requirements the student will receive a BA with Specialization in Recreation and Leisure Studies.

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students should consult with the Programme Director prior to registering for Recreation and Leisure Studies courses.

75 BA Specialization in Recreation and Leisure Studies

30 I. *Foundation*

NOTE: Introductory Sociology and Introductory Psychology are required of all students in the programme. Those who have credit for these courses, or either of them, at CEGEP or elsewhere are exempt from all, or from the appropriate part, of this requirement.

LEIS C241^3, C342^6, C426^6, C430^6, C464^6, SOCI C344^3

II. *Social Science Component*

21 Chosen from Psychology (A) or Sociology (B)

A

*i) PSYC C310^3**
ii) PSYC C315^3
iii) 15 credits in Psychology

B

*i) SOCI C310^6***
ii) 15 credits in Sociology

**To enter PSYC C310, a student must have obtained credit for PSYC C200 or equivalent.*
***To enter SOCI C310, a student must have obtained credit for SOCI C200 or equivalent.*

III. *Applied Recreation Component*

24 Chosen from Administration (X) or Programming (Y)

X	Y
ECON C201^3	APSS C355^3
ECON C203^3	APSS C356^3
MANA C213^3	APSS C420^6
MANA C266^3	ART C200^6
MARK C213^3	EXCI C215^3
MARK C350^3	EXCI C261^3
ACCO C213^3	EXCI C310^6
ACCO C218^3	EXCI C333^3
FINA C314^3	EXCI C370^6
FINA C315^3	EXCI C455^3
	CRAF C200^6
	DANC C200^6
	DINE C200^6
	DRAW C200^6
	MUSI C223^3
	PAIN C200^6
	SCUL C200^6
	THEA C200^6

90 Double Major in Recreation and Leisure Studies and Either Psychology or Sociology

NOTE: To be admitted to this programme, students must meet the admission requirements of both Psychology and Recreation and Leisure Studies, or of both Sociology and Recreation and Leisure Studies.

1. *Recreation and Leisure Studies* (48 credits)

I. *Foundation*
(All compulsory)

21 LEIS C241^3, C342^6, C426^6, C464^6

3 Electives to be chosen in consultation with the Programme Coordinator

II. *Applied Recreation Component*

24 credits chosen from group X or Y

X	Y
Administration	Programming
ECON C201[3]	APSS C355[3]
ECON C203[3]	APSS C356[3]
MANA C213[3]	APSS C420[6]
MANA C266[3]	ART C200[6]
MARK C213[3]	EXCI C215[3]
MARK C350[3]	EXCI C261[3]
ACCO C213[3]	EXCI C310[6]
ACCO C218[3]	EXCI C333[3]
FINA C314[3]	EXCI C370[6]
FINA C315[3]	EXCI C455[3]
	CRAF C200[6]
	DANC C200[6]
	DINE C200[6]
	DRAW C200[6]
	MUSI C223[3]
	PAIN C200[6]
	SCUL C200[6]
	THEA C200[6]

2. *Psychology or Sociology Major* (42 credits)
42 credits, as stipulated in Sections 31.250 and 31.310.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

RECREATION AND LEISURE STUDIES C241
Recreation and Leisure in Contemporary Society (3 credits)

The course provides a basis for understanding recreation and leisure as increasingly important aspects of our culture. In an era of rapidly changing life styles, with a high incidence of anxiety and frustration, the value of worthy use of free time in maintaining mental and physical health is presented. Topics discussed include: motivations for participation in leisure and recreation; social, psychological and historical foundations of leisure; education for leisure; and the analysis of special problems. Lectures and seminars: 3 hours per week.

RECREATION AND LEISURE STUDIES C342
Principles and Practices of Recreation Services (6 credits)

The course is concerned with the fundamental concepts governing the field of recreation and leisure. Many aspects of programme planning and development are examined, including: planning models and principles, classification, evaluation, leadership; analyses of programme models in social, cultural, and physical recreation, leisure education, therapeutic recreation, as they relate to the provision of services. Lectures: 3 hours per week. Laboratories/Field Study: 1 hour per week.

RECREATION AND LEISURE STUDIES C426
Administration of Recreation Services (6 credits)

Prerequisite: Enrolment in the final year of a Recreation and Leisure Studies programme. Analysis of the processes involved in planning and managing leisure service delivery systems. Topics to be studied include: principles of planning, organization, zero-based budgeting, financial control, supervision. The course exposes the students, through field study, to a variety of management procedures currently used in the field. Lectures, Laboratories and Field Study.

RECREATION AND LEISURE STUDIES C430
Recreation and Leisure Studies Seminar (6 credits)

Prerequisite: Enrolment in the final year of a Recreation and Leisure Studies programme. This is a third-year interdisciplinary seminar in which students can tie together all they have learned in the Recreation and Leisure Studies Programme. Additionally, students will be set on a course of study that should continue after they graduate so that they can keep up with future developments in this area. Lectures: 3 hours per week for two terms or equivalent time in independent study.

NOTE: Students who have received credit for INTE C430 may not take this course for credits.

RECREATION AND LEISURE STUDIES C464
Recreation Internship (6 credits)

Prerequisite: Enrolment in the final year of a Recreation and Leisure Studies programme. In consultation with their mentors, students are given the opportunity to study theoretical and practical problems confronting professionals in the field of Recreation. The course offers a supervised period of work with a selected organization. Each student, during seminar sessions, formulates a study proposal. The practicum commences when the proposal has been approved. The course involves a minimum of a six-week 240-hour period.

31.270 Religion

Chairman
J. LIGHTSTONE, *Associate Professor*

Professors
C. DAVIS
M. DESPLAND
S. McDONOUGH

Associate Professors
F.B. BIRD
D. MILLER
M. OPPENHEIM
J. ROSSNER

Assistant Professors
M. HANSON
I. ROBINSON

Adjunct Associate Professors
J.B. LIGHTMAN
D. ROME

Adjunct Assistant Professor
H. JOSEPH

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Religion
6 RELI C211[6]
6 RELI C213[6] or C222[6]
12 From one of three areas of specialization:

A. *Asian Religions:*
Chosen from RELI C311[6], C313[6], C314[3], C315[3], C316[3], C317[3], C318[3], C319[3], C374[3]
B. *Christianity:*
Chosen from RELI C301[3], C302[3], C361[6], C362[6], C363[6]
C. *Judaism:*
Chosen from RELI C301[3], C302[3], C326[3], C327[3], C328[3], C330[3], C350[3], C351[3], C352[3], C353[3], C354[3], C355[3], C356[3], C357[3], C358[3]

6 From courses specified in a second area above
6 Chosen from RELI C331[3], C332[3], C333[3], C334[3], C341[6], C342[6], C343[3], C380[6]
6 RELI C499[6]
6 RELI Elective credits at 300 or 400 level
12 Elective credits in RELI or related Discipline (in consultation with Departmental Adviser)

72 BA Joint Honours in Religion and English
See Section 31.004

66 BA Joint Honours in Religion and History
See Section 31.004

72 BA Joint Honours in Religion and Philosophy
See Section 31.004

60 BA Joint Honours in Religion and Sociology
See Section 31.004

42 BA Major in Religion
6 Chosen from RELI C211[6], C213[6], C311[6], C313[6], C314[3], C315[3], C316[3], C317[3], C318[3], C319[3]
6 Chosen from RELI C222[6], C301[3], C302[3], C326[3], C327[3], C328[3], C330[3], C361[6], C362[6], C363[6]
30 RELI elective credits at the 300 or 400 level

30 Minor in Religion
30 RELI elective credits (in consultation with the departmental Adviser)

60 BA Honours in Judaic Studies
6 Chosen from RELI C201[6], HEBR C210[6], C211[3], C250[6], C251[3]
6 Chosen from RELI C211[6], C213[6]
6 RELI C222[6]
9 Chosen from RELI C301[3], C326[3], C327[3], C328[3], C330[3]
21 Chosen from RELI C350[3], C351[3], C352[3], C353[3], C354[3], C355[3], C356[3], C357[3], C358[3], C395[3], C396[3], C397[3], C398[3], C401[3]
6 Chosen from RELI C302[3], C313[6], C361[6], C362[6], C372[3]
6 RELI C400[6]

120 Bi-University Major in Judaic Studies
By agreement between the University and Bar-Ilan University, Ramat-Gan, Israel, students may be admitted to a 120-credit bi-University programme designed to provide the academic base for prospective teachers in Jewish Studies programmes at the primary, elementary, and junior high school levels in Canada. Admission to the programme depends upon acceptance by both universities. Successful applicants may spend up to the first 24 months (i.e., two regular and two summer sessions) at Bar-Ilan. The rest of the requirements for the degree must be completed at Concordia while the student is registered in the BA Major in the Judaic Studies programme. Further information on the programme may be obtained from the Department of Religion.

42 BA Major in Judaic Studies

6 Chosen from RELI C201[6], HEBR C210[6], C211[3], C250[6], C251[3]
6 Chosen from RELI C211[6], C213[6]
6 RELI C222[6]
9 Chosen from RELI C301[3], C326[3], C327[3], C328[3], C330[3]
9 Chosen from RELI C350[3], C351[3], C352[3], C353[3], C354[3], C355[3], C356[3], C357[3], C358[3], C395[3], C396[3], C397[3], C398[3], C401[3]
6 Chosen from RELI C302[3], C313[6], C361[6], C362[6], C372[3]

NOTE: By agreement between the University and Bar-Ilan University, Ramat-Gan, Israel, students in this programme may take up to 30 Concordia-equivalent credits at Bar-Ilan. They must, however, meet the requirements for the Major; at least 12 credits of course work in Judaic Studies must be taken at Concordia.

30 Minor or Certificate in Judaic Studies

6 Chosen from RELI C211[6], C213[6]
6 RELI C222[6]
9 Chosen from RELI C301[3], C326[3], C327[3], C328[3], C330[3]
9 Chosen from RELI C350[3], C351[3], C352[3], C353[3], C354[3], C355[3], C356[3], C357[3], C358[3], C395[3], C396[3], C397[3], C398[3], C401[3]

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

RELIGION C201
Classical Hebrew (6 credits)
A study of the language of the classical Hebrew texts. The course is designed as a preparation for reading the Hebrew Bible, but takes account of other texts.

RELIGION C211
Understanding Religion (6 credits)
A systematic and topical introduction to the study of religion. The purpose of the course is to enable the student to articulate and investigate questions about the meaning and nature of religion. Problems discussed will include the elements of religious experience, forms of religious expression and interpretation, religious communities and practices, and the questions raised by the contemporary interfaith dialogue. Materials will be taken from a variety of religious traditions.

RELIGION C213
Major Religious Traditions of the World (6 credits)
A historical and comparative overview of the major religious traditions of the world: Judaism, Christianity, Islam, Hinduism, Buddhism, and Chinese religions. The course will include some consideration of the new religions in North America.

RELIGION C222
Judaic Studies: History of the Jewish People (6 credits)
A historical survey of the Jewish people from the Biblical Age until the beginning of the modern period. The survey will focus on both the sociological and the intellectual developments in this area. The emphasis will be on the formation and continuation of the major Jewish concepts, institutions, and traditions, on the dynamic forces in Jewish society, and on the interrelationship between Jews and non-Jews during this period.

RELIGION C301
Biblical Studies I: The Hebrew Bible (3 credits)
An introduction to the methods and results of Biblical scholarship with regard to the history, culture, and religion of Ancient Israel. Particular attention is given to the major religious affirmations and theological concepts of the Hebrew Bible that have become central in the subsequent development of Judaism.

RELIGION C302
Biblical Studies II: The New Testament (3 credits)
An introduction to the methods and results of contemporary New Testament scholarship; a critical survey of New Testament literature considering historical setting, history of text, religious and cultural significance. Attention is given to the central issues and concepts portrayed in the Synoptic, Johannine, and Pauline writings and their importance in the subsequent development of the Western religious tradition.

RELIGION C311
The Religions of India, Ceylon, Southeast Asia (6 credits)
A historical study of the major religious traditions native to the Indian sub-continent, Ceylon, and Southeast Asia. Although the course will concentrate upon the development of Hindu and Buddhist religious thought and institutions, consideration will be given to the influence of Jainism, Islam, and Christianity upon Hinduism and Theravada Buddhism. The course will end with an analysis of the contemporary religious situation in India and Burma.

RELIGION C313
Islam (6 credits)
A study of the rise and development of Islamic religion and culture from its beginnings in the seventh century to modern times.

RELIGION C314
The Buddhist Tradition (3 credits)
An introduction to the Buddhist tradition examining basic elements present throughout most Buddhist sects, such as: the life of the Buddha; the ethical, intellectual and meditative commitments of the aspirant; worship, and the relation of the Buddhist community to the secular government.

RELIGION C315
Mahayana Buddhism (3 credits)
A study of the Mahayana Buddhist vision of the ideal life. Principal topics will include the scriptures in which this vision is articulated, the philosophy through which it is systematized, the ethical and meditative practices through which it may be realized, and the eventual state of Buddhahood.

RELIGION C316
Chinese Religion (3 credits)
An examination of the religious life of the Chinese people. Emphasis will be placed upon the way in which each community, family, and individual draws upon the common stock of religious elements (Confucian, Taoist, Buddhist, Shamanistic) to forge a religion suited to its needs.
NOTE: Students who have received credit for RELI C312 may not take this course for credits.

RELIGION C317
Tibetan and Japanese Religious Thought and Institutions (3 credits)
A study of the development of new religious forms from the synthesis of imported religions and indigenous practices in Tibet and Japan.
NOTE: Students who have received credit for RELI C312 may not take this course for credits.

RELIGION C318
Religion and Art in India, China and Japan (3 credits)
An introduction to the religious art of India, China and Japan from earliest times to the present. The course will focus upon the relationship between the visual arts (architecture, sculpture and painting) and religious world views and mythological symbols that provide the basis for the artistic form.

RELIGION C319
Modern Islam (3 credits)
Prerequisite: RELI C313 or permission of the Department. A study of Islamic religious and social thought in nineteenth and twentieth century. Islamic liberalism, traditionalism and fundamentalism will be compared and contrasted.

RELIGION C326
Classical Judaism (3 credits)
The concepts, institutions and literature of classical rabbinic Judaism (circa 70-700 C.E.) viewed against rabbinism's biblical and pharisaic background and in the context of the world of Late Antiquity. The course will examine the development of rabbinic systems of thought and law as preserved primarily in the Mishnah and the Talmud. Consideration will be given as well to popular rabbinic beliefs and practices and to early rabbinic mysticism.

RELIGION C327
Medieval Jewish Thought and Institutions (3 credits)
Topics in the intellectual, religious, and social history of selected Jewish communities during the Middle Ages. Both internal Jewish developments and changing Jewish relations with their non-Jewish neighbours will be considered.

RELIGION C328
Modern Jewish Thought and Institutions I (1780-1880) (3 credits)
A survey of the social and intellectual currents which shaped Jewish modernism from the beginning of emancipation until 1880. Topics will include: the emergence of modern Jewish consciousness, Jewish pluralism, and religious differentiation within Jewish society (Haskalah, Hasidism, science of Judaism, orthodoxy, reform, and conservatism), secular versus religious values, disintegration, and unification within the Jewish community.

RELIGION C330
Modern Jewish Thought and Institutions II (1880 to the present) (3 credits)
A survey of social and intellectual currents in Jewish society from 1880 until the present. Topics will include: the impact of anti-Semitism, particularism and universalism, nationalism and its critics, Jewish existentialism and the new mysticism (Rosenzweig, Buber, Rabbi Kook), reactions to the holocaust, and the relationship between Israel and the diaspora.

RELIGION C331
Contemporary Ethical Issues: Personal (3 credits)
This course will identify and analyze ethical issues arising at the personal level today. Issues will be discussed in the context of the inter-relationship between moral values and religious convictions. Topics will vary from year to year, but some examples of areas that raise ethical and religious questions for personal existence are: affluence, alienation, work, leisure, aging, drugs.

RELIGION C332
Contemporary Ethical Issues: Societal (3 credits)
This course will identify and analyze ethical issues arising from social groups today. In discussing the issues, account will be taken of the bearing of religious institutions and traditions upon social attitudes and problems. Topics will vary from year to year, but examples of problem areas that have evoked ethical and religious debate are: economic and social inequality, race relations, violence and war, hunger and poverty, population growth.

RELIGION C333
Women and Religion I (3 credits)
An examination of the roles and images of women in the history of religions. Topics might include: the development of patriarchal religion, religion and sexuality, women and myth, the roles of women in different religious communities. This course will include an integrated sequence of lectures (minimum, three weeks) by an anthropologist on matriarchal and patriarchal societies.

RELIGION C334
Women and Religion II (3 credits)
An examination of the religious and ethical questions raised by contemporary discussions of women's experience. Topics might include: the recent beginnings of a feminist theology, the feminist critique of organized religion and society, the effects of male perspective upon philosophy and theology, and women in the ministry.

RELIGION C335
Sexuality in the History of Religions (6 credits)
A study of religious attitudes towards human sexuality using materials drawn from a variety of religious traditions, with special attention to such topics as: incest taboos, adultery, celibacy, ritualized sexual acts, and patterns of marriage.

RELIGION C341
Religion and Literature (6 credits)
This course deals with the questions raised for the study of religion by works of literature. An account will be given of the recent development of interdisciplinary studies in religion and literature, and of the problems of method that have arisen. The relation between the

interpretation of religious language, with its use of myth, parable, symbol and metaphor, and literary criticism will be explored. The religious implications, direct and indirect, of selected literary works will be discussed.

RELIGION C342
Religion and Science (6 credits)
An historical investigation of the reasons for the conflict between religion and science in Western culture, and an examination of the chief issues involving both science and religion still under discussion today.
NOTE: Students who have received credit for RELI C443 may not take this course for credits.

RELIGION C343
Major Psychological Theories of Religion
(3 credits)
This course will focus upon such major psychological theories of Religion as evinced in the writings of William James, Sigmund Freud, C.G. Jung, Erik Erikson and Abraham Maslow.

RELIGION C350
The Bible and the Ancient Near East
(3 credits)
The significance of Old Testament institutions within the context of the ancient Mediterranean world. Law, covenant, writing, historiography, the relationship between man and God, sin, sacrifice, and atonements will be discussed. Readings from contemporary literature in translation (Babylonian, Egyptian, Greek, Hittite, Ugarite).
NOTE: Students who have received credit for RELI C325 may not take this course for credits.

RELIGION C351
Judaism in the Hellenistic Age (3 credits)
An examination of the cultural interaction between Judaism and Hellenism from the third century B.C.E. to the fifth century C.E. Particular attention will be given to modes of cultural fusion and syncretism evident between Jews and various Hellenistic groups both in the Land of Israel and the Diaspora. Topics include: Jewish sectarian movements in the Late Second Commonwealth; Philo of Alexandria; Josephus; Hellenistic Jewish Gnosticism; Jewish magicians and Holy Men; cults of the dead; Judaic art and artifacts.

RELIGION C352
Sephardic Judaism (3 credits)
A critical analysis of the religious traditions peculiar to Sephardic Jews. Particular attention will be given to North African Judaism.
NOTE: Students who have received credit for RELI C329 may not take this course for credits.

RELIGION C353
Jews and Christians: the Historical Encounter (3 credits)
An historical survey of the relationship between Judaism and Christianity. The circumstances of the birth of Christianity and its separation from Judaism will be discussed as well as the development of inter-religious disputation and dialogue. Special emphasis will be given contemporary manifestations of the Judeo-Christian encounter.

RELIGION C354
The Mystical Tradition in Judaism
(3 credits)
A survey of the Jewish mystical tradition, including the development of the messianic idea, Merkava mysticism, Hasidei Ashkenaz, Kabbala in Provence and Spain, Lurianic Kabbala, Sabbatianism and Hasidism. Emphasis in this course will be placed on the study of representative Jewish mystical texts.

RELIGION C355
Modern Jewish Identity (3 credits)
The questions "Who is a Jew?" and "What does it mean to be a Jew?" arose at the time of the Emancipation, that is, with the entry of Jews into the social, political, and intellectual life of Europe at the end of the eighteenth century. This class will explore the models of Jewish identity that were offered from the time of Moses Mendelssohn to the contemporary period. The course will also focus on the intellectual trends as well as the historical events that helped to shape Jewish self-understanding.

RELIGION C356
Jewish Communities in North America: Their Historical Development and Religion
(3 credits)
This course will examine the historical development of the Jewish community of North America and analyze the dynamics of Judaism on this continent. Questions to be raised in this course include: Is there an "American" Judaism? In what respect is the North American Jewish experience a continuation of past Jewish experience and in what way is it a new phenomenon in Jewish history?

RELIGION C357
Holocaust: Historical Circumstances
(3 credits)
This course will examine the historical circumstances that made possible the systematic destruction of European Jewry in the years 1939-45 as well as the process of destruction and the Jewish and world responses to that destruction.

RELIGION C358
Holocaust: Theological Ramifications
(3 credits)
This course will examine the theological ramifications of the Holocaust in Jewish and Christian thought. Issues to be discussed include the problem of evil; suffering; the election of Israel; God and His relation to the course of human events.

RELIGION C361
Studies in the History of Christian Thought
(6 credits)
An introduction to the classics of Christian thought from the Fathers to the modern period. Authors studied at length may vary from year to year, but, in any case, students will acquire a basic knowledge of Augustine, Aquinas, Luther, and Calvin.

RELIGION C362
Questions from the Christian Tradition
(6 credits)
A study of some of the major religious questions and controversies in the history of the Christian West. The questions chosen will vary, but examples are: grace and free will, faith and reason, history and eschatology, church and state, contemplation and action.

RELIGION C363
Religion in Canada (6 credits)
The historical development of the major religious traditions in Canada, their influence on the social, political, and cultural areas of Canadian life and their contemporary significance. Attention will also focus on the interaction of Catholic, Protestant, Jewish, Indian, and Eskimo groups.

RELIGION C370
Death and Dying (6 credits)
A comparative examination of conceptions of death and dying among the major religious traditions. Attention will be paid as well to exploring contemporary notions of death and dying both in so far as we are still informed by traditional conceptions, and to the extent that, for many, such notions have lost their cogency.

RELIGION C371
Religion and Healing (3 credits)
An examination of the interaction between religious conceptions and practices on the one hand and healing arts on the other. The course considers such phenomena as: shamanism; healing and Christian shrines; native healing rites, folk medicine of the third world; modern spiritual healing groups; the contemporary dialogue between established forms of medicine, psychiatry and religion in the twentieth century.

RELIGION C372
The Human Body in Religious Faith and Practice (3 credits)
A study of 1) the attitudes to the human body in various religious traditions; 2) the impact of the body-mind problem upon religious conceptions of human life and destiny; 3) the body as the foundation of religious symbolism and ritual.

RELIGION C373
Comparative Mysticism (3 credits)
This course will introduce students to the study of mysticism and mystical experience using materials drawn from a wide range of cultural and religious sources and examining the work of such contemporary theorists as William James, Rudolph Otto, W.T. Stace, R.C. Zaehner and Robert Ellwood.

RELIGION C374
Islamic Mysticism (3 credits)
Prerequisite: RELI C313 or permission of the Department. A study of the major themes of Islamic mystical thought as expressed in philosophical writings and in poetry.

RELIGION C376
Religion, Myth and Magic in Classical Antiquity (3 credits)
An examination of the interaction and significance of religion, myth and magic in classical antiquity, in the East and the West, as discernible in such cultures as: Ancient Egypt, Babylon, India, China, Israel, Greece and Rome through the beginnings of the Christian era and the Medieval period.
NOTE: Students who have received credit for RELI C364 may not take this course for credits.

RELIGION C377
Religion and Occult Ideas in Modern History (3 credits)
An examination of the basic ideas and cultural impact of occult traditions in the modern period from the so-called "Rosicrucian Enlightenment" in the sixteenth and seventeenth centuries, as described by Frances Yates, to the nineteenth- and twentieth-century resurgence of occult themes in what Robert Ellwood has called "an alternative reality tradition in the West."
NOTE: Students who have received credit for RELI C364 may not take this course for credits.

RELIGION C378
Religion and the History of Psychical Research (3 credits)
A review of the history of psychical research (including discoveries, claims, limitations and problems) from the foundation of the British and American Societies for Psychical Research in the nineteenth century through the establishment of contemporary "experimental parapsychology" in the West and behind the Iron Curtain. An evaluation of the possible significance of this material for comparative studies in the philosophies of religion and science.
NOTE: Students who have received credit for RELI C465 may not take this course for credits.

RELIGION C379
Religion and Contemporary Psychic Experience (3 credits)
An examination of the contemporary varieties of psychic experience being claimed by persons in the modern world and reported in popular literature, sociological surveys and medical or psychological literature. This material will be critically evaluated in the light of the theories of C.G. Jung, William James and others.
NOTE: Students who have received credit for RELI C465 may not take this course for credits.

RELIGION C380
Comparative Religious Ethics: West and East (6 credits)
This course will identify the ways in which different religious and ideological traditions from West and East consider and deal with ethical issues. Examples of such traditions are: Navaho, Jewish, Christian, Islamic, Hindu, Buddhist, Confucian, Humanist, Communist. The ethical values and ideals found in these traditions, and their influence upon individual life patterns and social organization, will be considered.
NOTE: Students who have received credit for RELI C435 may not take this course for credits.

RELIGION C387
Special Topics in the Philosophy of Religion (3 credits)
Prerequisite: Permission of the Department. This course affords an opportunity for the advanced student to study a special theme or problem in the Philosophy of Religion.

RELIGION C389
Special Topics in Comparative Religious Ethics (3 credits)
Prerequisite: Permission of the Department. This course affords an opportunity for the advanced student to study a special theme or problem in Religious Ethics.

RELIGION C391
Special Topics in the History of Religions
(3 credits)
Prerequisite: Permission of the Department. This course affords an opportunity for the advanced student to study a special theme or problem in the History of Religions.

RELIGION C393
Special Topics in Religion and Culture
(3 credits)
Prerequisite: Permission of the Department. This course affords an opportunity for the advanced student to study a special theme or problem in Religion and Culture.

RELIGION C395
Special Topics in Biblical Studies
(3 credits)
This course will examine a selected book or theme of the Hebrew Bible with a discussion of current research. The course will focus on critical methodology and its application.

RELIGION C396
Special Topics in Ancient Judaism
(3 credits)
Prerequisite: Permission of the Department. This course will examine a selected issue or area of concern in Ancient Judaism with a discussion of current research. Possible Topics might be: the Dead Sea Scrolls, the Formation of the Mishna, Alexandrian Jewry.

RELIGION C397
Special Topics in Medieval Judaism
(3 credits)
Prerequisite: Permission of the Department. This course will examine a selected issue or area of concern in medieval Judaism. Possible topics might include: Hasidism, Codification of Halakha, messianic thought and movements.

RELIGION C398
Special Topics in Modern Judaism
(3 credits)
Prerequisite: Permission of the Department. This course will examine a selected issue or area of concern in modern Judaism. Possible topics might include: the rise of Reform Judaism, the encounter between Judaism and modern Philosophy, Zionist thought.

RELIGION C400
Honours Seminar in Judaic Studies
(6 credits)
This course is open only to Honours students in Judaic Studies. The student will work with an individual faculty member in a particular area of Judaic Studies. The student will be asked to produce a sustained piece of written work to be read by his/her adviser and at least one other member of the Department.

RELIGION C401
Advanced Studies in Classical Jewish Texts
(3 credits)
This course will be based on representative readings from Biblical, post-Biblical, and medieval Hebrew literature. It will concentrate on specific topics and will pay attention to the historical and philosophical background of the texts.

RELIGION C491
Special Seminar (6 credits)
Prerequisite: Permission of the Department. Subject matter will vary from year to year to take advantage of the special interests of the seminar leader. This course will provide opportunities to senior students for discussion and advanced study.

RELIGION C493
Religious Institutions (3 credits)
Prerequisite: Permission of the Department. Seminar on a particular period or institution in the history of religion.

RELIGION C495
Religious Thinkers (3 credits)
Prerequisite: Permission of the Department. Seminar on a particular thinker or school of thought in the history of religion.

RELIGION C499
Honours Seminar in Religion (6 credits)
This course is open only to Honours students in Religion. The student will work with an individual faculty member in a particular field of Religious Studies. The student will be asked to produce a sustained piece of written work to be read by his/her adviser and at least one other member of the Department.

31.280 Russian Studies

Coordinator
I. SMITH, *Associate Professor*

The Russian Studies Programmes prepare students for professional and academic careers in the Civil Service, Trade and Commerce, External Affairs, and other areas of relationship between Canada and the Soviet Union. A wide variety of courses in Russian language, politics, economics, history, philosophy and geography is taught by specialists who work closely with students in designing programmes which best fit their needs.

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students should consult with the Programme Coordinator prior to registering for Russian Studies courses. Written work may be required in Russian for these courses.

60 BA Honours in Russian Studies

6	Chosen from ECON C370^6, C375^3, C476^3*
18	RUSS C210^6, C250^6, C300^6
12	HIST C347^6, C441^6**
6	GEOG C345^6***
6	Chosen from RUSS C420^6, C430^6, C435^6, C470^3, C471^3
12	Chosen from PHIL C334^3, C335^3, POLI C323^3, C333^3, C436^6, RUSS C420^6, C430^6, C435^6, C470^3, C471^3

**Prerequisite: ECON C201^3, C203^3 or equivalent.*

***It is suggested that students taking HIST C347^6, C441^6 also register for HIST C201^3 and C202^3*

****GEOG C345^6 may be taken for credits in the Honours or Major programmes only when the subject matter is relevant to Russian Studies. A student who has already taken it in a year when the subject matter was not thus relevant registers under GEOG C346$_6$* in meeting the degree requirements. Courses with Russian content may be taken in consultation with the Coordinator from the following departments: Economics, Geography, History, Philosophy, Political Science, Modern Languages.

NOTE: Students with a previous knowledge of the Russian language will have their programme determined in consultation with the Programme Coordinator.

42 BA Major in Russian Studies

18	RUSS C210^6, C250^6, C300^6
6	HIST C347^6**
6	GEOG C345^6*
12	Chosen from RUSS C420^6, C430^6, C435^6, C470^3, C471^3, ECON C375^3, C476^3, HIST C441^6, PHIL C334^3, C335^3, POLI C333^3, C323^3, C436^6

**GEOG C345^6 may be taken for credits in the Honours or Major programmes only when the subject matter is relevant to Russian Studies. A student who has already taken it in a year when the subject matter was not thus relevant, registers under GEOG C346^6 in meeting the degree requirements. Courses with Russian content may be taken, in consultation with the Coordinator, from the following departments: Economics, Geography, History, Philosophy, Political Science, Modern Languages.*

***It is suggested that students taking HIST C347 also register for HIST C201 and C202.*

NOTE: Students with a previous knowledge of the Russian language will have their programme determined in consultation with the Programmme Coordinator.

31.290 Science/Mathematics for Teachers

CERTIFICATE IN THE TEACHING OF SCIENCE (Elementary School Level)

Programme Director
G.J. TRUDEL, *Associate Professor*

The Faculty of Arts and Science offers a Certificate in the Teaching of Science (Elementary School Level) for the professional development of teachers interested in science. Practising teachers are offered the opportunity to improve their knowledge of science in order to help them teach modern science more effectively. The presentation will generally be in workshop form, with emphasis on assignments that develop activities for classroom use. Courses will be offered on and off campus during the Winter and Summer months, subject to sufficient demand and the availability of suitable instructors.

Admission Requirements

Admission to this programme is open to teachers who already hold either a General Elementary Licence or an Elementary Special Education Licence. Under certain conditions individuals certified to teach at the Secondary level may be admitted into this programme depending on their educational background and teaching experience.

PROGRAMME

30 Certificate in the Teaching of Science (Elementary School Level)

30 SCIE C315[6], C316[6], C317[6], C318[6], C319[6]

NOTE: Where students have completed similar courses in previous studies, pro tanto credits may be approved up to a maximum of 12 credits. In some cases, students with fewer than 12 pro tanto credits may, with approval of the Faculty of Arts and Science obtained upon the recommendation of the programme director, be permitted to take courses in related areas for credit towards the certificate. However, at least 18 of the credits must be taken within the programme.

Science courses in this programme have been renumbered.

SCIENCE C315
Philosophy and Methodology of Teaching Science, Elementary Level (6 credits)

A study of the role, impact, and responsibility of science at the elementary school level, a study of science programme design, teaching processes, and classroom activities at the elementary level.

NOTE: This course is available only to practising teachers.

NOTE: Students who have received credit for SCIE C314 may not take this course for credits.

SCIENCE C316
Matter and Energy (6 credits)

Prerequisite: SCIE C315. States and properties of matter, change of state, force, common machines, mass, volume, expansion, gravitation, heat, light, sound, electricity, magnetism, other sources of energy, conservation of energy.

NOTE: This course is available only to practising teachers.

NOTE: Students who have received credit for SCIE C310 may not take this course for credits.

SCIENCE C317
Man and his Environment (6 credits)

Prerequisite: SCIE C315. Temperature, soil, water, air, atmosphere, reproduction, heredity, erosion, weather, nitrogen cycles, pollution, ecology and ecosystems.

NOTE: This course is available only to practising teachers.

NOTE: Students who have received credit for SCIE C311 may not take this course for credits.

SCIENCE C318
Our Earth and the Universe (6 credits)

Prerequisite: SCIE C315. Time cycles, volume, density, constitution, and properties of the solar system, gravity, seasons, water, and carbon cycles.

NOTE: This course is available only to practising teachers.

NOTE: Students who have received credit for SCIE C312 may not take this course for credits.

SCIENCE C319
Living Things and Their Activities (6 credits)

Prerequisite: SCIE C315. The cellular structure of living things, food chains, plants, animals, germination, growth, soil, water, respiration, nutrition, life cycles. Classification into families, communities, and populations.

NOTE: This course is available only to practising teachers.

NOTE: Students who have received credit for SCIE C313 may not take this course for credits.

CERTIFICATE IN MATHEMATICS FOR TEACHERS (Elementary School Level)

Programme Director
M.A. BOSWALL, *Associate Professor*

Admission Requirements

Admission to this programme is open to teachers who already hold either a General Elementary Licence or an Elementary Special Education Licence. Under certain conditions individuals certified to teach at the Secondary level may be admitted into this programme depending on their educational background and teaching experience.

The Department of Mathematics offers a Certificate in Mathematics for Teachers (Elementary School Level) for the professional development of teachers interested in mathematics. This programme was designed in accordance with the programme-cadre for Elementary Mathematics issued by the General Directorate of Elementary and Secondary Education and approved for "perfectionnement" by the Higher Education Branch of the Department of Education on February 15, 1974.

Practising teachers are offered the opportunity to improve their knowledge of mathematics in order to help them teach mathematics more effectively. The presentation will generally be in workshop form with emphasis on assignments which develop activities for classroom use. Courses will be offered on and off campus during the Winter and Summer months subject to demand and the availability of instructors.

30 Certificate in Mathematics for Teachers (Elementary School Level)

6 MATH C305[6]
24 Chosen from MATH C300[6], C301[6], C302[6], C303[6], C304[6], C307[3], C309[3]

NOTE: Where students have completed similar courses in previous studies, pro tanto credits may be approved up to a maximum of 12 credits. In some cases, students with fewer than 12 pro tanto credits may, with approval of the Faculty of Arts and Science obtained upon the recommendation of the programme director, be permitted to take courses in related areas for credit towards the certificate. However, at least 18 of the credits must be taken within the programme.

CERTIFICATE IN MATHEMATICS FOR TEACHERS (Junior Secondary School Level)

Programme Director
S.H. ERLWANGER, *Associate Professor*

Admission Requirements

Admission to this programme is open to teachers who already hold a teaching licence at the secondary level. This licence may be a generalist licence or a mathematics specialist licence.

The Department of Mathematics offers a Certificate in Mathematics for teachers who teach mathematics at the junior high school level. Some of the courses offered have been specially designed to deal with new subject matter which is being introduced into the secondary school curriculum, as well as with aspects of mathematical pedagogy necessary for the teaching of this material. This programme was approved for perfectionnement on February 14, 1974, by the Higher Education Branch of the Department of Education.

30 Certificate in Mathematics for Teachers (Junior Secondary School Level)

15 MATH C400[3], C401[6], C404[6]
15 Chosen from MATH C402[3], C403[3], C405[3], C406[3], C408[3], C409[3], C410[3], C411[3], C417[3], C419[3]

NOTE: In some cases where students have completed similar mathematical courses in previous studies, the Mathematics Department may modify a student's programmes to meet his professional requirements. It may grant pro tanto credits up to a maximum of 12 credits.

Course descriptions see §31.200.

31.300 Science and Human Affairs

Coordinator
F.H. KNELMAN, *Professor*

This programme is concerned with the social dimensions and interactions of science and technology. Its teaching and research provide an interdisciplinary examination of the ethical, cultural, political and environmental problems associated with scientific and technological change. Attention is also focused on analysis of the social systems of science from historical, sociological, economic and philosophical perspectives.

The programme is designed for students interested in science and technology, but who do not plan careers in scientific research or the technical professions. Rather it prepares them for constructive careers which involve a grasp of scientific methods, an understanding of scientific principles and an appreciation of the nature, content and implications of scientific research, technological innovation and industrial development. For students working toward degrees in science or engineering, the programme provides the opportunity to develop important additional perspectives and capabilities.

There are a number of streams or areas within the programme. In the History and Philosophy of Science, for example, students may concentrate so as to prepare themselves for graduate work. Another stream examines the social impact of science and technology by focusing on policy problems. Students may develop a variety of approaches for dealing with public policy in either the areas of science and technology or environment. These also are preparatory for existing graduate programmes.

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students should consult with the Programme Coordinator prior to registering for Science and Human Affairs courses.

60 BA Specialization in Science and Human Affairs

12	SCHA C250^3, C251^3, C253^3, C254^3
6	Chosen from SCHA C350^6, C351^6, GEOG C200^6, C211^6; or Science electives approved by the Coordinator
18	SCHA C450^6, C451^6, C453^6
18	Chosen from SCHA C452^6, PHIL C226^3 and C228^3, C231^6, C421^6, RELI C342^6, SOCI C405^6, HIST C330^6 or electives approved by the Coordinator
6	SCHA C454^6

NOTE: Students may be required by their adviser to take an English writing course at an appropriate level.

42 BA Major in Science and Human Affairs

12	SCHA C250^3, C251^3, C253^3, C254^3
6	Chosen from SCHA C350^6, C351^6; GEOG C200^6, C211^6; or Science electives approved by the Coordinator
18	Chosen from SCHA C450^6, C451^6, C452^6, C453^6; PHIL C231^6, C346^6, C421^6; RELI C342^6, SOCI C405^6, HIST C330^6, or elective credits approved by the Coordinator
6	SCHA C454^6

30 Minor in Science and Human Affairs

12	SCHA C250^3, C251^3, C253^3, C254^3
18	Chosen from SCHA C350^6, C351^6, C450^6, C451^6, C452^6, C453^6

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

SCIENCE AND HUMAN AFFAIRS C250
Introduction to Science and Human Affairs I (3 credits)

The social and historical context of scientific and technological change. The reciprocal interactions of science with government, ideology, economic development, religion, literature and social theory; science and the city; science and the control of human life; science and human liberation; new definitions of scientific responsibility may be considered.

NOTE: Students who have received credit for INTE C250 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C251
Introduction to Science and Human Affairs II (3 credits)

A continuation of SCHA C250. This course may be taken independently.

NOTE: Students who have received credit for INTE C251 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C253
Environmental Issues I (3 credits)

The scientific, social and cultural nature of man's relationship to his environment. Emphasis will be placed on pollution, conservation, population resources and human ecology.

NOTE: Students who have received credit for INTE C253 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C254
Environmental Issues II (3 credits)

A continuation of SCHA C253. This course may be taken independently.

NOTE: Students who have received credit for INTE C254 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C350
Case Histories in Experimental Science
(6 credits)

Readings will concentrate on the original scientific texts (e.g. Harvey, Galileo, Newton, Faraday, Pasteur, Crick and Watson). In the laboratory section, students will follow the original experimental procedures which will also be examined in classroom demonstrations on film and videotape.

NOTE: Students who have received credit for INTE C350 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C351
Astronomy, Cosmology and the Space Age
(6 credits)

The nature of the universe as described in both contemporary and historical astronomical theories; cosmology and its cultural context; the nature of scientific method in astronomy; life on other worlds; the social implications of space flight.

NOTE: Students who have received credit for INTE C351 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C450
Advanced Study in Technology and Society
(6 credits)

Prerequisite: SCHA C250, C251, or permission of the Coordinator. The social role and impact of technology in modern society; alienation in the technological age; the critique of technology; the sources and processes of discovery; invention and innovation; methods of technological assessment and forecasting.

NOTE: Students who have received credit for INTE C450 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C451
Advanced Study in the History of Science
(6 credits)

Prerequisite: Permission of the Coordinator. Seminar in a selected topic in the History of Science. The emphasis will be on encouraging students to conduct historical investigation on their own under a professor's guidance. The specific content will vary from year to year depending on the instructor.

NOTE: With the permission of the Coordinator students may take this course twice for credits provided that a different subject is dealt with the second time and will register under SCHA C452.

NOTE: Students who have received credit for INTE C451 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C452
Advanced Study in the History of Science
(6 credits)

Prerequisite: Permission of the Coordinator. Students who have received credit for SCHA C451 may register for SCHA C452 provided the subject matter is different.

NOTE: Students who have received credit for INTE C452 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C453
Science and Public Policy (6 credits)

Prerequisite: SCHA C250, C251 or permission of the Coordinator. This course will deal with those public policy issues which involve a major component of science and technology, i.e., energy, environment, resources, health, etc. The course will also cover the general relationships of science and government relating to the making of science and technology policy particularly emphasizing the Canadian context, but including such topics as technology aid and transfer.

NOTE: Students who have received credit for INTE C453 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C454
Seminar in Science and Human Affairs
(6 credits)

Prerequisite: Enrolment in Major or Specialization in Science and Human Affairs, or permission of the Coordinator. Taught by all members of staff, this seminar affords an opportunity for intensive examination of an explicitly interdisciplinary theme.

NOTE: With the permission of the Coordinator students may take this course twice for credits provided that a different subject is dealt with the second time and will register under SCHA C455.

NOTE: Students who have received credit for INTE C454 may not take this course for credits.

SCIENCE AND HUMAN AFFAIRS C455
Seminar in Science and Human Affairs
(6 credits)

Prerequisite: Permission of the Coordinator. Students who have received credit for SCHA C454 may register for SCHA C455 provided the subject matter is different.

NOTE: Students who have received credit for INTE C455 may not take this course for credits.

31.310 Sociology and Anthropology

Chairman
H.T. BUCKNER, *Associate Professor of Sociology*

Assistant to the Chairman
N. SHARPE

Sociology
Professors
S. CHODAK
H. GUINDON
J.D. JACKSON
K. JONASSOHN

Associate Professors
G. DEWEY
J.P. DRYSDALE
E. GAVAKI
E.S. HOECKER-DRYSDALE
H. HORWICH
K. KUSANO
N. KYRIAZIS
G. LeCAVALIER
J.C. MOULEDOUX
W.C. REIMER
J. SMUCKER
A.J. SYNNOTT
J.F. TASCONE
J. TRESIERRA

Associate Professor of Exercise Science and Sociology
B.M. PETRIE

Assistant Professors
B.D. CZARNOCKI
S. HLOPHE
S. RUSSELL

Anthropology
Associate Professor
A.N. KLEIN

Assistant Professors
P.J. deVRIES
D. LEGROS

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

Students seeking admission to the Honours programme on or after June 1, 1977 will be bound by the Honours requirements outlined in §16.2.4 of this Calendar. Students who already had Honours status by June 1, 1977 will continue to be governed by the requirements that applied at the date of their admission to the Honours programme.

60 BA Honours in Sociology
12 SOCI C200^6, C210^6
6 SOCI C300^6
18 SOCI C400^6, C409^6, C410^6
24 Sociology elective credits* in consultation with the Departmental Honours Adviser.

**With prior approval of the Departmental Honours Adviser, the student may substitute up to 12 credits from a related discipline.*

60 BA Specialization in Sociology
6 SOCI C200^6
6 SOCI C300^6
6 SOCI C210^6
6 Chosen from SOCI C310^6, C311^6, C410^6
6 SOCI C400^6
6 Chosen from SOCI C320^6, C330^6, C370^6, C372^6
24 Sociology elective credits* in consultation with the Departmental Adviser

** With prior approval of the Departmental Adviser, the student may substitute up to 12 credits from a related discipline.*

42 BA Major in Sociology
6 SOCI C200^6
6 SOCI C300^6
6 Chosen from SOCI C210^6, C310^6, C311^6, C312^6, C410^6
6 Chosen from SOCI C320^6, C330^6, C370^6, C372^6, C400^6
18 Sociology elective credits* in consultation with the Departmental Major Adviser

**With prior approval of the Departmental Major Adviser, the student may substitute up to 6 credits from a related discipline.*

30 Minor in Sociology
6 SOCI C200^6
6 SOCI C300^6
18 Sociology elective credits in consultation with Departmental Major Adviser. At least 9 of the 18 credits must be taken from courses numbered above the 200 level.

72 BA Joint Honours in Sociology and Philosophy
See Section 31.004

60 BA Joint Honours in Sociology and Religion
See Section 31.004

66 BA Honours in Political Sociology
18 SOCI C200^6, C300^6, C435^6
18 POLI C200^6, C270^6, C470^6
12 Chosen from SOCI C400^6, C405^6, POLI C370^6, C372^6
12 Chosen from SOCI C280^6, C320^6, C330^6, C335^6, C353^3, C354^3, POLI C230^6, C336^6, C351^6, C353^6, C360^6, C430^6
6 Chosen from SOCI C409^6*, POLI C438^6

**On approval of the Honours Adviser, the prerequisites for SOCI C409 may be modified for students in this programme.*

NOTE: The course-numbering system in Sociology uses the first digit of the course number to indicate the number of prerequisites required for admission to a course. A C2— course has no prerequisites, a C3— has one, and a C4— has two prerequisites. The second digit indicates the place of a course among different subject groups. C-1- courses constitute the research methods group, C-0- courses the theory group. Thus, when a prerequisite is stated as "one 300-level course from Group 2," any course whose number is C32- (i.e., C320, C323, C324, C325) fulfills the prerequisite requirement.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

SOCIOLOGY C200
Introduction to Sociology (6 credits)
Introduction to the basic concepts used in the study of social structure, processes, and change. Survey of the substantive areas of social life ranging from the relations between individuals and groups to institutions and total societies.

SOCIOLOGY C210
Statistics (6 credits)
An introduction to those descriptive and inferential statistics most applicable to the discipline of Sociology. *NOTE See §200.7*

SOCIOLOGY C220
Social Organization (3 credits)
Examines the basic characteristics of societal organization through the use of comparative and evolutionary perspectives. Conceptual analysis of specific forms of, and changes in, the comprehensive pattern of social organization.

SOCIOLOGY C230
Race and Ethnic Relations (3 credits)
Race and ethnicity are examined as bases of social differentiation. Ethnic group relations are analyzed in relation to stratification and the exercise of power. Explorations of the phenomena of discrimination, prejudice, and intergroup accommodation.

SOCIOLOGY C260
Deviance (6 credits)
Examination of the nature, forms, sources, and consequences of deviations from social norms and the mechanisms of social order and control. Theories of deviant behavior, including juvenile delinquency, and their social, legal, and practical implications are considered.

SOCIOLOGY C261
Social Problems (3 credits)
Consideration of a range of social problems from a sociological perspective. Examination of the process by which "problems" are socially defined and recognized.

SOCIOLOGY C270
Socialization (6 credits)
Examination of the social and cultural processes by which the individual becomes a functioning member of society. Attention given to adult socialization and re-socialization in diverse institutional contexts; e.g., schools, occupations, hospitals, prisons, the military. The relation of social structure to role acquisition and role performance is a major focus of the course.

SOCIOLOGY C272
The Family (6 credits)
The family as an institution is examined in relation to social structure and historical change. Special emphasis is placed on trends in the nuclear family patterns of contemporary North American society, and on the relation of the family to the broader societal environment.

SOCIOLOGY C280
Quebec Society (6 credits)
Focus upon the historic changes in Quebec society, with emphasis upon the period following the Second World War. Examination of issues which have provoked conflicting interpretations, including the Conquest, the nature of Confederation, Quebec nationalism, and the language question.

SOCIOLOGY C282
Canadian Society (6 credits)
Analysis of Canadian social structure and change; the relation of the whole of Canadian society to its constituent elements; the relation of Canadian society to its international environment.

SOCIOLOGY C290
Selected Topics in Sociology A (3 credits)
Study of a special topic in Sociology.

SOCIOLOGY C291
Selected Topics in Sociology B (3 credits)
Study of a special topic in Sociology.

SOCIOLOGY C300
Classical Social Theory (6 credits)
Prerequisite: SOCI C200. Examination of the origins of Sociology and of the sociological works of nineteenth- and early twentieth-century European theorists, with consideration of the social and political context. Particular emphasis is given to the works of Durkheim, Marx, and Weber. Readings include primary sources and critical commentaries.

SOCIOLOGY C310
Research Methods (6 credits)
Prerequisite: SOCI C200. Introduction to qualitative and quantitative methods of research in Sociology.

SOCIOLOGY C311
Survey Research Methods (6 credits)
Prerequisite: SOCI C200 or C210. Examination of methods of conducting survey research. Topics include design, sampling, pretesting of instruments, data collection, logic of analysis, multivariate analysis, and report writing.

SOCIOLOGY C312
Field Work Research (6 credits)
Prerequisite: SOCI C200. Study of methods of field-work research in Sociology.

SOCIOLOGY C320
Comparative Social Systems (6 credits)
Prerequisite: SOCI C200 or C220. Examination of the problems of development, modernization, and social change in terms of a general theoretical framework. Comparative analysis of trends of development in the West, the Soviet Union and Eastern Europe, and the Third-World nations.

SOCIOLOGY C323
Economy and Society (3 credits)
Prerequisite: SOCI C200 or C220. Examination of the ways in which economic activities are legitimated or otherwise affected by social norms and values, and of the ways in which various social systems react to the strains created by the accommodation of new technology and of new industrial organizations.

SOCIOLOGY C324
Sociology of Economic Development (3 credits)
Prerequisite: SOCI C200 or C220. Consideration of theories and models of economic development. Attention given to the role of foreign-aid programmes, the role of local political élites and self-reliance as factors in economic development.

SOCIOLOGY C325
Social Change (3 credits)
Prerequisite: SOCI C200 or C220. Examination of the sources, mechanisms, and consequences of social and cultural change; analysis of classical and contemporary theories of change, as well as important empirical studies.

SOCIOLOGY C326
Social Issues (6 credits)
Prerequisite: SOCI C200 or ANTH C211 or POLI C200. Analysis of selected social problems considered in relation to public policies promoted by government, especially in Canada. The social problems included are related to ecology, economic development, social and value change, and political structures. Attention is also given to the expansion of the functions of the modern state.
NOTE: Students who have received credit for SOCI C423 may not take this course for credits.

SOCIOLOGY C330
Social Class and Structured Inequality (6 credits)
Prerequisite: SOCI C200 or C220 or C230. The dynamics of social stratification and differentiation, including economic distinctions and their consequences, social status, power, and mobility. Emphasis upon Canadian society.

SOCIOLOGY C335
Collective Behavior and Social Movements (6 credits)
Prerequisite: SOCI C200. Characteristics of collective behaviour, its origin, development, and relationship to institutionalized social structures. The nature and function of social movements, their life histories, and their relationship to the larger society.

SOCIOLOGY C337
Sociology of Religion (6 credits)
Prerequisite: SOCI C200 or RELI C213. Analysis of religious experiences, beliefs, ritual, and organizations. Consideration of both traditional and contemporary religious institutions as sources of meanings and values which may either support or subvert ongoing social structures. Attention also given to how non-religious situations generate religious movements and, conversely, how religious situations generate non-religious (e.g. social, economic, political) movements.

SOCIOLOGY C340
Complex Organizations (6 credits)
Prerequisite: SOCI C200 or C220. Examination of the nature and characteristics of large and complex organizations, their internal structures and relationships to their social environments.

SOCIOLOGY C342
Industry and Society (6 credits)
Prerequisite: SOCI C200 or C220. Analysis of the nature of change and its consequences in advanced industrialized societies. Special attention will be directed toward corporate structures, the labour movement, the function and meaning of work, leisure, changes in societal structure, and the exercise of power.

SOCIOLOGY C343
Sociology of Work (6 credits)
Prerequisite: SOCI C200 or C220. Examination of the structural characteristics of work in modern industrial society. Consideration of the spectrum of occupations and professions; the relationships between work and identity in contemporary society. Special attention placed on the issues of conflict and alienation in work and the impact of work on other aspects of social structure.

SOCIOLOGY C344
Sociology of Leisure (3 credits)
Prerequisite: SOCI C200 or C220. The effects of social, economic, and political institutions upon the structure and use of leisure time. Emphasis upon historical changes and the implications of alienation, anomy, and inequality.

SOCIOLOGY C345
Sociology of Labour Movements (3 credits)
Prerequisite: SOCI C200. Origins and development of labour movements; contemporary characteristics of union organizations within the context of their social, political, and economic environments. Emphasis upon Canada and Quebec.

SOCIOLOGY C350
Sociology of Urban Regions I (3 credits)
Prerequisite: SOCI C200 or C220 or C230. Analysis of the historical development of the city, focusing on the pre-industrial city from a cross-cultural perspective.

SOCIOLOGY C351
Sociology of Urban Regions II (3 credits)
Prerequisite: SOCI C200 or C220 or C230. Analysis of the growth of urbanization in North America, concentrating on the social and spatial organization of Canadian cities, especially Montreal.

SOCIOLOGY C353
Community Studies I (3 credits)
Prerequisite: SOCI C200 or C220 or C230. The study of locale. The major theoretical approaches used in the study of locale are examined in terms of their content and methodological implications. Special attention is given to the social system and structuralist approaches.

SOCIOLOGY C354
Community Studies II (3 credits)
Prerequisite: SOCI C200 or C220 or C230. Analysis of selected studies of Canadian communities in terms of one or more theoretical approaches current in the field. Some course materials are available only in French.

SOCIOLOGY C357
Population and Society (3 credits)
Prerequisite: SOCI C200. A critical analysis of population dynamics, including an examination of theories concerning the population-resources problem (e.g. Malthus and Marx). Emphasis is given to the relation between ideology and methodology in population study.

SOCIOLOGY C358
Social Demography (3 credits)
Prerequisite: SOCI C200 or C210. Basic principles, issues, data, and methods of population study. Primary focus on social factors that affect demographic processes, and the ways in which demographic change is related to social structure and social change. Consideration of the basic components of demographic analysis: fertility, mortality, and migration.

SOCIOLOGY C360
Crime and Justice in Society (6 credits)
Prerequisite: SOCI C200 or C260 or C261. Study of the theories and methods developed in criminology and penology since the nineteenth century. Definitions of crime, and the interplay between individual autonomy and community controls are analyzed.

SOCIOLOGY C370
Self and Society (6 credits)
Prerequisite: SOCI C200. Study of the basic concepts and theories regarding social definitions of the self. Emphasis on ideas regarding personality, motivation, and interpersonal attitudes, viewed in terms of the interplay between actors and social structures.

SOCIOLOGY C372
Sociology of Sex Roles (6 credits)
Prerequisite: SOCI C200. Examination of the social status and roles of men and women in society. Use is made of comparative, historical and empirical research. Particular attention is paid to the Marxist, feminist, and socialist-feminist theoretical perspectives on the patriarchal nature of society.

SOCIOLOGY C373
Sociology of Childhood (3 credits)
Prerequisite: SOCI C200. Comparative and historical approach to the study of the status and role of the child in the family and in the larger society. Emphasis on the sociological aspect of childhood in modern industrial societies.

SOCIOLOGY C377
Sociology of Education (3 credits)
Prerequisite:SOCI C200. Analysis of the social structures within a formal education system. Trends in education are examined in relation to broader patterns of social change.

SOCIOLOGY C380
Social Movements in Quebec (6 credits)
Prerequisite: SOCI C200 or C280. Analysis of historically significant movements for social change in Quebec.

SOCIOLOGY C382
Intergroup Relations in Canada (3 credits)
Prerequisite: SOCI C200 or C230 or C282. Canadian ethnic group phenomena are examined in the light of theories of intergroup relations. The groups include Indians, Inuit, Blacks, Jews, and English- and French-speakers. The mosaic theory of Canadian ethnic relations will be considered.

SOCIOLOGY C390
Selected Topics in Sociology (3 credits)
Prerequisite: One Sociology course at the 200 level. Study of a special topic in Sociology, with the requirement of a research paper.

SOCIOLOGY C391
Selected Topics in Sociology (3 credits)
Students who have received credit for SOCI C390 may register for SOCI C391 provided the subject matter is different.

SOCIOLOGY C392
Selected Topics in Sociology (3 credits)
Prerequisite: One Sociology course at the 200 level. Study of a special topic in Sociology, with the requirement of a research paper.

SOCIOLOGY C393
Selected Topics in Sociology (3 credits)
Students who have received credit for SOCI C392 may register for SOCI C393 provided the subject matter is different.

SOCIOLOGY C394
Selected Topics in Sociology (3 credits)
Prerequisite: One Sociology course at the 200 level. Study of a special topic in Sociology, with the requirement of a research paper.

SOCIOLOGY C395
Selected Topics in Sociology (3 credits)
Students who have received credit for SOCI C394 may register for SOCI C395 provided the subject matter is different.

SOCIOLOGY C396
Selected Topics in Sociology (6 credits)
Prerequisite: One Sociology course at the 200 level. Study of a specific topic in Sociology, with the requirement of a research paper.

SOCIOLOGY C397
Selected Topics in Sociology (6 credits)
Students who have received credit for SOCI C396 may register for SOCI C397 provided the subject matter is different.

SOCIOLOGY C400
Contemporary Sociological Theory
(6 credits)
Prerequisite: SOCI C300. Critical examination of contemporary sociological theories against the background provided by Marx, Durkheim, and Weber. The theories are analyzed in terms of their critical assumptions, conceptual distinctions, methodological features, and ethical implications. Theoretical works are chosen to represent a range of approaches to Sociology, such as positivism, functionalism, conflict theory, structuralism, critical theory, symbolic interactionism, and phenomenology.

SOCIOLOGY C401
The History of Social Thought (6 credits)
Prerequisite: SOCI C300. Overview of the various ideas and schools of thought which attempt to explain the organization, development, and change of various aspects of human societies. Emphasis on the philosophical underpinnings of the discipline of Sociology. The time span ranges from ancient Greek social thought to early nineteenth-century European thought in which Sociology was founded.

SOCIOLOGY C402
Topical Seminar in Sociological Theory I
(3 credits)
Prerequisite: SOCI C300 and permission of the Department. Intensive critical analysis of either (a) the major writings of a particular theorist, or (b) a major problem or issue in sociological theory.

SOCIOLOGY C403
Topical Seminar in Sociological Theory II
(3 credits)
Prerequisite: SOCI C300 and permission of the Department. Intensive critical analysis of either (a) the major writings of a particular theorist, or (b) a major problem or issue in sociological theory.

SOCIOLOGY C405
Sociology of Knowledge (6 credits)
Prerequisite: SOCI C300. Examination of the relation of ideas and symbolic frames of reference to social structure. Emphasis on social factors bearing on claims to truth and validity and upon definitions of social reality.

SOCIOLOGY C409
Honours Seminar (6 credits)
Prerequisite: SOCI C410 and permission of the Honours Adviser. Consideration of methodological and theoretical ideas related to the formulation of an Honours research proposal. Second-term work involves completion of research and writing of an Honours paper.

SOCIOLOGY C410
Research Design and Analysis (6 credits)
Prerequisite: SOCI C200 and C210. Study of quantitative methods of data collection and analysis. Topics include: experimental and quasi-experimental design, principles of measurement, survey design, secondary data sources, techniques of multivariate analysis, and interpretation.

SOCIOLOGY C411
Logic of Sociological Inquiry (3 credits)
Prerequisite: SOCI C200 and 6 credits of courses from Group 1. Consideration of the interaction between sociological theory and empirical research. Critical study of the conceptual bases for truth-claims within the major sociological perspectives.

SOCIOLOGY C415
Topical Seminar in Research Methods
(3 credits)
Prerequisite: SOCI C200 and 6 credits of courses from Group 1. Advanced study of a selected topic or type of research method in Sociology.

SOCIOLOGY C426
Trans-National Power and Interdependency
(6 credits)
Prerequisite: SOCI C200; and C220 or C320. Systematic and critical review of the emergence of new forms of supra-national organizations. Special attention is given to dimensions of power and interdependency among societies.

SOCIOLOGY C435
Political Sociology (6 credits)
Prerequisite: SOCI C200; and C320 or C330 or C335. The social structure of political institutions, parties, and movements is analyzed in relation to other social and class structure. The social and economic correlates of political action and attitudes are examined, as well as the process of political socialization.

SOCIOLOGY C450
Seminar in Urban and Metropolitan Studies
(6 credits)
Prerequisite: SOCI C200 and one course from Group 5. Intensive study of selected theories and monographs dealing with aspects of urbanization.

SOCIOLOGY C457
Selected Topics in Population (3 credits)
Prerequisite: SOCI C200 or C210; and C357 or C358. Selected topics of importance in population studies are examined in detail. Each student is required to submit a research paper on a significant demographic problem.

SOCIOLOGY C460
Law and Society (6 credits)
Prerequisite: SOCI C200; and C260 or C360. Study of the legal system as an institutionalized system of social control, using historical and comparative data. Special attention is given to the study of law and legal organizations in contemporary society in relation to other areas of sociological inquiry, especially social change, conflict, and decision-making.

SOCIOLOGY C480
Topical Seminar in Quebec Society
(3 credits)
Prerequisite: SOCI C200 and C280. Advanced study of a selected topic concerning Quebec society.

SOCIOLOGY C482
Topical Seminar in Canadian Society
(3 credits)
Prerequisite: SOCI C200 and C282. Advanced study of a selected topic concerning Canadian society.

SOCIOLOGY C485
Topical Seminar in Area Studies (3 credits)
Prerequisite: SOCI C200; and C320 or C324. Advanced study of a selected topic concerned with international changes, planning, or development.

SOCIOLOGY C490
Topical Seminar in Sociology (3 credits)
Prerequisite: SOCI C200 and one Sociology course at the 300 level. A critical examination of a special topic or problem in Sociology, with the requirement of a research paper.

SOCIOLOGY C491
Topical Seminar in Sociology (3 credits)
Students who have received credit for SOCI C490 may register under SOCI C491.

SOCIOLOGY C492
Topical Seminar in Sociology (3 credits)
Prerequisite: SOCI C200 and one Sociology course at the 300-level. A critical examination of a special topic or problem in Sociology, with the requirement of a research paper.

SOCIOLOGY C493
Topical Seminar in Sociology (3 credits)
Students who have received credit for SOCI C492 may register under SOCI C493.

SOCIOLOGY C494
Topical Seminar in Sociology (3 credits)
Prerequisite: SOCI C200 and one Sociology course at the 300 level. A critical examination of a special topic or problem in Sociology, with the requirement of a research paper.

SOCIOLOGY C495
Topical Seminar in Sociology (3 credits)
Students who have received credit for SOCI C492 may register under SOCI C495.

SOCIOLOGY C496
Topical Seminar in Sociology (6 credits)
Prerequisite: SOCI C200 and one Sociology course at the 300 level. A critical examination of a special topic in Sociology, with the requirement of a research paper.

SOCIOLOGY C497
Topical Seminar in Sociology (6 credits)
Students who have received credit for SOCI C496 may register for SOCI C497 provided the subject matter is different.

ANTHROPOLOGY

60 BA Honours in Anthropology
6 ANTH C211[6]*
6 LING C200[6]
15 Chosen from ANTH C321[3], C322[3], C362[6], C364[3], C365[3], C367[3], C368[6], C394[3], C395[3]
9 Chosen from ANTH C301[3], C302[3], C325[3], C369[6], C397[3], C398[3]
18 Chosen from ANTH C426[6], C434[6], C459[6], C460[6], C469[6], C494[6]
6 ANTH C499[6]

**Students exempted from ANTH C211[6] are required to take 6 credits among Anthropology 300-level courses.*

42 BA Major in Anthropology
6 ANTH C211[6]*
12 Chosen from ANTH C321[3], C322[3], C362[6], C364[3], C365[3], C367[3], C368[6], C394[3], C395[3]
6 Chosen from ANTH C301[3], C302[3], C325[3], C369[6], C397[3], C398[3]
18 Chosen from ANTH C426[6], C434[6], C459[6], C460[6], C469[6], C494[6]

**Students exempted from ANTH C211[6] are required to take 6 credits among Anthropology 300-level courses*

30 Minor in Anthropology
6 ANTH C211[6]*
12 Chosen from ANTH C321[3], C322[3], C362[6], C364[3], C365[3], C367[3], C368[6], C394[3], C395[3]
6 Chosen from ANTH C301[3], C302[3], C325[3], C369[6], C397[3], C398[3]
6 Chosen from ANTH C426[6], C434[6], C459[6], C460[6], C469[6], C494[6]

**Students exempted from ANTH C211[6] are required to take 6 credits among Anthropology 300-level courses.*

COURSES

ANTHROPOLOGY C211
Introduction to Anthropology (6 credits)

Group A: Area courses
ANTHROPOLOGY C321
Stateless Societies in Africa (3 credits)

ANTHROPOLOGY C322
Early States and New Nations of Africa (3 credits)

ANTHROPOLOGY C362
Aboriginal Indian and Inuit Social Organizations (6 credits)

ANTHROPOLOGY C364
Peoples and Cultures of India (3 credits)

ANTHROPOLOGY C365
Chinese Culture and Society (3 credits)

ANTHROPOLOGY C367
Peoples and Cultures of Southeast Asia (3 credits)

ANTHROPOLOGY C368
Peoples and Cultures of the Caribbean (6 credits)

ANTHROPOLOGY C394
Topics in Ethnography I (3 credits)

ANTHROPOLOGY C395
Topics in Ethnography II (3 credits)

Group B: Topical courses
ANTHROPOLOGY C301
Oral Literature (3 credits)

ANTHROPOLOGY C302
Art, Aesthetics, and Anthropology (3 credits)

ANTHROPOLOGY C325
Magic, Science, and Religion (3 credits)

ANTHROPOLOGY C369
Anthropology of Dependency (6 credits)

ANTHROPOLOGY C397
Topics in Culture and Society I (3 credits)

ANTHROPOLOGY C398
Topics in Culture and Society II (3 credits)

Group C: Theory
ANTHROPOLOGY C426
Symbolic Anthropology (6 credits)

ANTHROPOLOGY C434
Anthropological Theories (6 credits)

ANTHROPOLOGY C459
Political Anthropology (6 credits)

ANTHROPOLOGY C460
Social Anthropology (6 credits)

ANTHROPOLOGY C469
Economic Anthropology (6 credits)

ANTHROPOLOGY C494
New Topics in Anthropology (6 credits)

ANTHROPOLOGY C499
Honours Essay (6 credits)

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent course.

ANTHROPOLOGY C211
Introduction to Anthropology (6 credits)
An introduction to the fields of Anthropology: facts and ideas about the nature of the human species and its past; and the search for the causes of social and cultural differences and similarities. This course deals with the diversity of languages, of family and marriage systems, religious beliefs and rituals, political and economic organizations. Examples are drawn from past and present societies, from western and non-western cultures.

ANTHROPOLOGY C301
Oral Literature (3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. This course will acquaint students with various types of oral poetry, historical tales, myths, and personal narratives from indigenous cultures of Africa, Oceania, and North America. The discussion of these materials will focus on contemporary anthropological issues, such as: 1) The various modes of conceptualizing time and historical truth, man's relation to nature and to his fellow man; 2) The reliability of narrator-informants as spokesmen for their own cultures. Translations of transcribed primary sources are supplemented by background lectures on the cultures studied.

ANTHROPOLOGY C302
Art, Aesthetics, and Anthropology
(3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. This course introduces students to painting, sculpture, costume decoration, masks, music, and dance in different, non-industrial, cultural settings. Readings and lectures focus on contrasting values concerning beauty in various cultural settings. Readings and lectures focus on contrasting values concerning beauty in various cultural and historical settings. The ways in which different cultures have expressed and explained their aesthetic values will be presented, alongside interpretations by anthropologists and art historians. The course will employ slides and readings. Students will attend films and possibly local galleries whenever they show relevant materials.

ANTHROPOLOGY C321
The Stateless Societies of Africa (3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. The course will survey stateless societies spread across the Sudan into Nigeria. The course will outline hominid evolution in Eastern and Southern Africa and sketch the outlines of African prehistory as reconstructed by archeologists. These will be followed by an investigation of such present-day hunters and gatherers as the Kalahari Bushmen and the Ituri forest Pygmies. The bulk of the course will study a number of stateless societies in the area, such as the pastoral Nuer and the agricultural Tiv. Particular emphasis will be given to the ways in which kinship and marriage organize social, political, and economic relations and preserve social order in these cultures without institutionalized chieftainship.

ANTHROPOLOGY C322
Early States and New Nations of Africa
(3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. A survey of chiefdoms and early states in Africa, and of the response of Africa's peoples to colonial rule and new nationhood.

ANTHROPOLOGY C325
Magic, Science, and Religion (3 credits)
Prerequisite: ANTH C211, or RELI C211 or C213, or permission of the Department. A comparative study of beliefs, ritual, and ceremony in tribal, peasant, and modern societies. Consideration of anthropological theories regarding the development and functions of supernaturalistic and naturalistic modes of thought.

ANTHROPOLOGY C362
Aboriginal Indian and Inuit Social Organizations (6 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. Description and analysis of the diverse aboriginal forms of social and political organization of North American Indian and Inuit populations. Archaeology is briefly considered to ascertain whether it may provide explanations for the different levels of societal complexity which separated these cultures from One another at the time of first contact with Europeans.

ANTHROPOLOGY C364
Peoples and Cultures of India (3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. This course will deal with the development of these cultures from their earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social structural, and ideological aspects, with considerable attention to recent and prospective changes.

ANTHROPOLOGY C365
Chinese Culture and Society (3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. This course will deal with the development of Chinese culture from its earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social structural, and ideological aspects, with considerable attention to recent and prospective changes.

ANTHROPOLOGY C367
Peoples and Cultures of Southeast Asia
(3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. This course will deal with the development of these cultures from their earliest manifestation to the present. Emphasis will be upon the interrelations of techno-economic, social structural, and ideological aspects, with considerable attention to recent and prospective changes.

ANTHROPOLOGY C368
Peoples and Cultures of the Caribbean
(6 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. A comparative study of Caribbean peoples and cultures, their history in colonization and slavery, their current similarities in diversity.

ANTHROPOLOGY C369
Anthropology of Dependency (6 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. This course examines the phenomenon of dependency in terms of economic, political, and social linkages that may exist between economically advanced and traditional societies. An analysis of the structure of dependency will be followed by discussions of its effects upon traditional cultures. Case-study material will be drawn from the literature on tribal and peasant cultures, as well as from literature on those Canadian communities the economies of which have remained at the subsistence level.

ANTHROPOLOGY C394
Topics in Ethnography I (3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. The area studied will vary yearly, reflecting students' interests and requests. This course, like other courses in Group A, offers a presentation of cultural and societal forms in a given area.

ANTHROPOLOGY C395
Topics in Ethnography II (3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. The area studied will vary yearly, reflecting students' interests and requests. This course, like other courses in Group A, offers a presentation of cultural and societal forms in a given area.

ANTHROPOLOGY C397
Topics in Culture and Society I (3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. The topic will vary yearly, reflecting students' interests. This course, like other courses in Group B, offers the analysis of aspects of social life in a comparative perspective, drawing examples from a world sample of societies or cultures.

ANTHROPOLOGY C398
Topics in Culture and Society II (3 credits)
Prerequisite: ANTH C211 or equivalent, or permission of the Department. The topic will vary yearly, reflecting students' interests. This course, like other courses in Group B, offers an analysis of aspects of social life in a comparative perspective, drawing examples from a world sample of societies or cultures.

ANTHROPOLOGY C426
Symbolic Anthropology (6 credits)
Prerequisite: 12 credits in 300-level Anthropology, or permission of the Department. Comparative examination of the interaction between symbols systems and other components of society (e.g.political and economic). Religious ceremonies, rituals, rites of passage, myths, folk-tales, etiquette, and social conventions (from both western and non-western societies) will first be analyzed as sytems of communication. The effects of these phenomena upon the continuity of social structures will then be examined. Important publications by the major writers in this field will be closely examined: Levi-Strauss, Leach, Turner, Geertz, Sperber, Althusser, Baudrillard, and Barthes.

ANTHROPOLOGY C434
Anthropological Theories (6 credits)
Prerequisite: 12 credits in 300-level Anthropology, or permission of the Department. A study of the major schools of thought in social-cultural anthropology, such as functionalism, structuralism, the American historical school, evolutionism, cultural materialism, Marxism, and symbolic analysis. Important publications by the major writers in these fields will be closely examined.

ANTHROPOLOGY C459
Political Anthropology (6 credits)
Prerequisite: 12 credits in 300-level Anthropology, or permission of the Department. An examination of political process and political organization in cross-cultural perspective. Part I considers the differing approaches to political organization and processes, leadership, power, and authority in non-western cultures of various degrees of complexity. Part II analyzes social conflict in relation to politics, social continuity, and social change.

ANTHROPOLOGY C460
Social Anthropology (6 credits)
Prerequisite: 12 credits in 300-level Anthropology, or permission of the Department. The first term will cover a range of techniques for analyzing descent and marriage in societies where these are the most important and all-encompassing social relations. Examples of systems of kinship nomenclature, methods of reckoning descent, and rules of marriage will be chosen from different societies throughout the world. The student will be introduced to a series of important anthropological debates concerning the relative significance of descent and marriage in these systems. During the second term, the focus will shift to cultures in which the various functions of the bonds of kinship and marriage have been taken over by government, markets, law courts, and other institutions.

ANTHROPOLOGY C469
Economic Anthropology (6 credits)
Prerequisite: 12 credits in 300-level Anthropology, or permission of the Department. The study of the interrelations among production, exchange, and apportionment of goods and services in non-industrial societies. Conditions for the replication of such economic systems over time. Materials are drawn from societies in Africa, in Asia, in pre-capitalist Europe, in native America, and in the Pacific culture areas. The first term is devoted to a review of theories regarding the nature of economics within non-industrial societies and methods used in the analysis of their modes of production. The second term is concerned with selected case-studies. The course concludes with an appraisal of economic life in non-industrial societies and of the modifications brought to the human experience by capitalism.

ANTHROPOLOGY C494
New Topics in Anthropology (6 credits)
Prerequisite: 12 credits in Anthropology 300-level courses, or permission of the Department. Subject matter will vary yearly to take advantage of the special aptitudes of the instructor. As in every 400-level course, this course is theoretically oriented and reflects current trends in Anthropology.

ANTHROPOLOGY C499
Honours Essay (6 credits)
Prerequisite: Third-year standing in Honours Anthropology. Under the supervision of an Anthropology staff member, the student will prepare an Honours essay on a subject chosen in consultation with, and approved by, the professor.

31.320 Teaching of English as a Second Language

Director
M. PETRIE, *Assistant Professor*

Professor
N. BELMORE

Associate Professors
B. BARKMAN
P. LIGHTBOWN
R. MACKAY
J.D. PALMER
J. UPSHUR

Assistant Professors
P. ACHESON
I. MAZURKEWICH
G.S. NEWSHAM
V.A. SHARMA
B.M. SMITH

*CURRICULUM FOR THE DEGREE OF BACHELOR OF EDUCATION (Teaching English as a Second Language)

The Centre for the Teaching of English as a Second Language offers the Degree of Bachelor of Education (Teaching English as a Second Language).

Admission Requirements (B.Ed.)

General admission requirements are listed in §13 (Admission Regulations). Specific requirements are as follows:

1. Satisfactory completion of a two-year pre-university programme in a CEGEP or equivalent. Within the programme, the students will be required to have successfully completed the equivalent of four semester courses in English.
2. Owing to the specialized nature of this programme, no more than 30 pro tanto credits will normally be permitted, and the University reserves the right to determine which ones these should be.
3. Candidates must demonstrate competence in English. All non-native speakers of English must take a formal test of English proficiency and obtain a score acceptable to the TESL Centre.

NOTE I: Arrangements for taking the proficiency test may be made through the Admissions Office.

4. The B.Ed.(TESL) is open to both prospective and experienced teachers. The B.Ed.-(TESL) is offered in the day and evening, and in the summer session. Some of the courses may also be offered outside Montreal through the Office for Off-Campus Education.

90	**BEd (Teaching English as a Second Language)**
33	TESL C221[3], C231[3], C324[3], C341[3], C385[3], C413[3], C415[3], C424[3], C431[3], C485[6]
15	Chosen from TESL C201[3], C205[3], C211[3], C318[3], C351[3], C361[3], C433[3], C434[3], C442[3], C491[3], C492[3], approved* language-related courses in LING, MODL, FRAN, EDUC, etc. *NOTE: At least 9 credits must be in TESL*
6	EDUC C210[6]
12	Chosen from approved* courses in EDUC, PSYC, ADED. *NOTE: Students who intend to apply for teacher certification in Quebec must include EDUC C445[3] and at least three credits in learning and behavioural disabilities.*
6	ENGL C211[6] or C398[6]
6	English literature, to be approved by TESL Centre
12	Elective credits from any department

**NOTE: Written approval of the TESL programme adviser is required.*

CERTIFICATE IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE: SEQUENCE I

This 30-credit programme is offered to experienced teachers who are not native speakers of English.

Admission Requirements

1. Candidates must have an appropriate teacher's certificate or the equivalent of one year's experience as a full-time teacher.
2. Candidates must take a formal test of English proficiency and obtain a score acceptable to the TESL Centre. NOTE: Arrangements for taking the proficiency test may be made through the Admissions Office.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

The TESL Certificate: Sequence I programme is offered in the evening and in the summer session, and may be offered outside Montreal through the Office for Off-Campus Education.

NOTE II: Individuals who have completed TESL Certificate: Sequence II are not eligible for admission to TESL Certificate: Sequence I.

30 **Certificate in the Teaching of English as a Second Language: Sequence I**

Courses

TESL C201[3], C203[6], C205[3], C324[3], C341[3], C413[3], C415[3], C424[3], C433[3]

Substitution Guidelines for Certificate: Sequence I

NOTE III: Students in the Certificate: Sequence I who are granted an exemption from a required course or courses must replace these courses with appropriate courses from the following list, subject to NOTE VII below.

TESL C211[3] Introduction to Applied Linguistics
TESL C221[3] Comparative Phonetics
TESL C231[3] Modern English Grammar I
TESL C318[3] The Teaching of Reading and Writing

An approved course in English Literature or English Composition.

CERTIFICATE IN THE TEACHING OF ENGLISH AS A SECOND LANGUAGE: SEQUENCE II

This 30-credit programme is offered to experienced teachers whose native language is English or whose proficiency in English meets native-user standards.

Admission Requirements

1. Candidates must have an appropriate teacher's certificate or the equivalent of one year's experience as a full-time teacher.
2. Candidates must demonstrate competence in English. All non-native speakers of English must take a formal test of English proficiency and obtain a score acceptable to the TESL Centre. NOTE: Arrangements for taking the proficiency test may be made through the Admissions Office.

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

The Certificate: Sequence II programme is offered in the day and evening, and in the summer session. Some of the courses may also be offered outside Montreal through the Office for Off-Campus Education.

NOTE IV: Individuals who have completed TESL Certificate I are not eligible for admission to TESL Certificate II.

30 **Certificate in the Teaching of English as a Second Language: Sequence II**

6 ENGL C211[6] or C398[6]
24 TESL C221[3], C231[3], C324[3], C341[3], C415[3], C424[3], C431[3], C433[3]

Substitution Guidelines for Certificate: Sequence II

NOTE V: Students in the Certificate: Sequence II who are granted an exemption from a required course or courses must replace these courses with appropriate courses from the following list, subject to NOTE VII below.

TESL C211[3] Introduction to Applied Linguistics
TESL C318[3] The Teaching of Reading and Writing
TESL C351[3] History and Development of the English Language
TESL C413[3] Audio-Visual Aids
TESL C434[3] Error Analysis
TESL C442[3] Problems in Bilingualism
TESL C491[3] Study in a Special Subject
LING C200[6] Introduction to Linguistics

NOTE VI: Upon successful completion of the BEd programme, and application to the Registrar's Services Department, students may be recommended to the Quebec Teachers Certification Service for a Teaching Permit (Probation) in English as a Second Language. Previously certified teachers will be recommended for a Teaching Diploma. Upon successful completion of the TESL Certificate: Sequence I or Sequence II programme, students (applying in the same way) may also be recommended for appropriate teacher certification.

To be recommended for certification (Permit or Diploma), students must achieve at least a C (65%) grade in methodology and teaching practice courses: that is, 1. for the B.Ed., in TESL C324, C424, C385, and C485;
2. for the Certificate Sequence I or II options, in TESL C324, C424, and C433.

Students who obtain a passing grade that is below the level required for recommendation for certification will be placed on conditional standing within the programme and will be so informed in writing by the Director of the TESL Centre. Students will be allowed to repeat the course(s) in question only once in order to achieve the required grade. (For the status of this grade as part of the student record, see calendar 16.3.8.3.)

Students who fail to repeat the course successfully within one year will, to remain in the programme, be required to acknowledge in writing that they have forfeited the right to be recommended for certification.

Students who obtain a failing grade (F, R or NR) in any of the courses listed in paragraphs (1) and (2) above will be required to withdraw from the programme and will also be so informed in writing by the Director of the TESL Centre.

To be recommended for certification in Quebec, students must demonstrate reasonable fluency in French.

In the event that a student meets regular University standards but does not satisfy the requirements for recommendation for certification, the student may apply to receive the University degree or certificate but will not be recommended to the Ministry.

NOTE VII: Upon admission, students may be granted exemptions from courses in TESL programmes if they have completed equivalent work at the university level.

Replacement for these exemptions must be made in accordance with the guidelines established by the TESL Centre and approved by the University. Copies of these guidelines may be obtained in the TESL Centre.

Courses in English as a Second Language are designed for students who are not native speakers of English and who need further training in the effective use of English in the university setting. Students must be tested for placement in ESL C207, C208, C209, or C210. Information about placement testing schedules may be obtained from the English Language Proficiency Testing Office, TESL Centre.

NOTE: Students enrolled in a 90-credit degree programme in the Faculty of Arts and Science may take ESL courses for degree credit, up to a maximum of six credits.

Written work may be required in English for these courses; please consult with the Department.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

ESL C207
English Language—Intermediate I
(3 credits)
A course for students who are not native speakers of English and who need further training in the effective use of English in the university setting. Emphasis is on reading, writing, speaking, and listening skills.
NOTE: Students who have completed ESL 100 or have received credit for ENGL C205 or C206 may not take this course for credits.

ESL C208
English Language—Intermediate II
(3 credits)
Prerequisite: ESL C207 or placement by the Concordia English Language Diagnostic Test. This course is a continuation of ESL C207.
NOTE: Students who have completed ESL 100 or have received credit for ENGL C205 or C206 may not take this course for credits.

ESL C209
English Language—Advanced I (3 credits)
Prerequisite: ESL C208 or placement by the Concordia English Language Diagnostic Test. This course is for students who are not native speakers of English. It encourages the development of effective written communication and improved reading comprehension, so that students may perform competently in their other university work.
NOTE: Students who have received credit for ESL C201 or ENGL C205 or C206 may not take this course for credits.

ESL C210
English Language—Advanced II (3 credits)
Prerequisite: ESL C209 or placement by the Concordia English Language Diagnostic Test. This course is a continuation of ESL C209.
NOTE: Students who have received credit for ESL C201 or ENGL C205 or C206 may not take this course for credits.

ESL C290
Communication through the Study of Special Topics (3 credits)
Prerequisite: Successful completion of ESL C201 or tested equivalence. This course is for non-native speakers of English only. Its primary aim is to increase students' oral fluency in English; its secondary aim is to encourage improved levels of competence in the other language skills: listening, reading, and writing.

TESL C201
Speech (3 credits)
This course is open only to non-native speakers of English. The aim of the course is to prepare ESL teachers who are not native speakers of English to analyze pronunciation difficulties in terms of the major phonetic and phonemic features of English. Emphasis is placed on appropriate instruction for improving pronunciation.
NOTE: This course is available for credit only towards TESL Certificate: Sequence I.
Students who have received credit for TESL C221 may not take this course for credits.

TESL C203
Effective Communication (6 credits)
This course is open only to students who are not native speakers of English. The aim of the course is to raise the level of oral and written communication of ESL teachers who are not native speakers of English.
NOTE: This course is available for credit only towards TESL Certificate: Sequence I.

TESL C205
Introduction to the Structure of English
(3 credits)
This course is open only to students who are not native speakers of English. The structure of English is examined together with ways of using this knowledge for the effective teaching of English as a second language.
NOTE: This course is available for credit only towards TESL Certificate: Sequence I.
Students who have received credit for TESL C231 may not take this course for credits.

TESL C211
Introduction to Language and Applied Linguistics (3 credits)
In this course, selected characteristics of language and linguistics will be described. Related fields such as psycholinguistics, sociolinguistics, neurolinguistics and anthropological linguistics will be examined. The relevance of work in these areas for language learning and teaching will be discussed.

TESL C221
Comparative Phonetics (3 credits)
This course is specifically designed for students who intend to teach ESL. It provides an introduction to the sound systems of English and French. It compares the two systems and emphasizes techniques for teaching pronunciation in ESL classes.
NOTE: When the course is offered to a group preparing to teach students whose first language is not French, the course content may be adjusted to suit their specific needs.

TESL C231
Modern English Grammar I (3 credits)
This course is primarily designed for students who intend to teach ESL. The course involves a study of important aspects of English structure. It aims to prepare students to apply their knowledge of grammatical structure to the teaching of ESL, for example in the identification and analysis of errors and in the preparation of pedagogical materials.

TESL C318
The Teaching of Reading and Writing
(3 credits)
Prerequisite: 9 TESL credits. This course

analyzes the relationship between speech and writing, and surveys the structure and function of written English. Techniques and procedures for teaching reading and writing skills are studied and demonstrated. Current ESL materials are evaluated. Students are expected to prepare specimen materials for developing reading and writing skills in the classroom.

TESL C324
Methodology I (3 credits)
Prerequisite: TESL C221 and C231 or C201 and C205 and admission to a TESL programme or permission of the Department. This course reviews current theory in applied linguistics which relates directly to teaching and learning ESL in the classroom. Techniques and methods appropriate to child, adolescent, and adult learners are discussed and demonstrated. In this course the emphasis is on classroom-oriented techniques and materials related to the teaching of listening and speaking.
NOTE: A student must have achieved at least a C (65%) in this course in order to be recommended for teacher certification upon completion of the programme.

TESL C341
Language Acquisition (3 credits)
Prerequisite: TESL C221 and C231 or permission of the Department. This course analyzes developmental processes of both native language and second language acquisition. Research is examined in terms of implications for second language teaching.

TESL C351
History and Development of the English Language (3 credits)
Prerequisite: TESL C221 and C231, or permission of the Department. A study of the morphological, phonological, syntactical, and semantic changes that have taken place from Proto-Indo-European to the present. Students are required to do elementary linguistic analyses of texts from different stages in the development of the language.

TESL C361
Teaching English for Specific Purposes (3 credits)
Prerequisite: TESL C324 or permission of the Department. This course provides instruction in the teaching of language skills to those who require English either as an auxiliary to their scientific, technical or professional skills or as a medium for training in these areas.

TESL C385
Observation and Practice Teaching (3 credits)
Prerequisite: TESL C324 previously or concurrently. This course introduces the student teacher to the ESL classroom. Students observe experienced teachers and have opportunities for micro-teaching, peer teaching, as well as some teaching to ESL students. Opportunities are provided for observation and practice with ESL learners at different ages and levels of proficiency in English.
NOTE: Students who have received credit for TESL C433 may not take this course for credits.
Students must have achieved at least a C (65%) in this course in order to be recommended for teacher certification upon completion of the programme.
Students will complete the in-school portion of this course in a school approved by the Ministry of Education for practice-teaching purposes in order to be recommended for Quebec provincial teacher certification.

TESL C413
Audio-Visual Aids (3 credits)
Prerequisite: TESL C324 previously or concurrently. This course examines audio-visual resources and their effective use in second-language teaching. Students are given experience with the technical equipment generally available for use in second-language classrooms. In addition, students produce their own audio-visual materials.

TESL C415
Testing and Evaluation (3 credits)
Prerequisite: TESL C324. An introduction to the general purposes and methods of language testing, with a description of the chief characteristics of sound educational measures. The course examines the processes involved in constructing and administering tests designed to evaluate achievement in the ESL classroom.

TESL C424
Methodology II (3 credits)
Prerequisite: TESL C324. This course continues the presentation of techniques and methods begun in TESL C324. In this course the emphasis is on classroom-oriented techniques and materials related to the teaching of reading and writing.
NOTE: Students must have achieved at least a C (65%) in this course in order to be recommended for teacher certification upon completion of the programme.

TESL C431
Modern English Grammar II (3 credits)
Prerequisite: TESL C231. This course continues the study of English grammatical structure begun in TESL C231. It aims to increase students' knowledge in this field and to improve their ability to apply this knowledge to the teaching of ESL.

TESL C433
Practicum (3 credits)
Prerequisite: TESL C324. This course is open only to students enrolled in Certificate I or Certificate II. In this course students will practise techniques which were introduced in their methodology courses. There will be opportunities for observation of ESL classes taught by experienced teachers. Techniques presented in TESL C324 and C424 will be practised in micro-teaching, peer teaching and sessions with groups of ESL students. Requirements include lesson planning and evaluation of one's own teaching performance.
NOTE: Students must have achieved at least a C (65%) grade in this course in order to be recommended for teacher certification upon completion of the programme.
NOTE: Students who have received credit for TESL C385 may not take this course for credits.

TESL C434
Error Analysis (3 credits)
Prerequisite: 15 TESL credits including TESL C324 and C341. In this course current theories of second language acquisition are reviewed and applied. Each student carries

out analyses of ESL learners' language, focussing on patterns of errors. The identification and classification of errors is followed by the development of teaching materials which the student uses in order to help learners overcome some persistent errors.

TESL C442
Problems in Bilingualism (3 credits)
Prerequisite: 15 TESL credits. This course is an introduction to some linguistic, social and psychological aspects of languages in contact, with particular attention to the situation in Canada. Emphasis is placed on the description and evaluation of different types of bilingual education programmes and the factors which influence the choice of particular models.

TESL C485
Internship (6 credits)
Prerequisite: TESL C385 or equivalent. This internship is closely integrated with TESL C424. Students will do supervised teaching in ESL classes. In addition to seminars including demonstrations and discussions of teaching techniques appropriate to different ages and levels of proficiency in English, students will be responsible for teaching a group or groups of ESL learners over a prescribed time period.
NOTE: Students must have achieved at least a C (65%) in this course in order to be recommended for teacher certification upon completion of the programme.
Students will complete the in-school portion of this course in a school approved by the Ministry of Education for practice-teaching purposes in order to be recommended for Quebec provincial teacher certification.

TESL C491
Study in a Special Subject (3 credits)
Prerequisite: Permission of the Department. This course provides an opportunity for advanced students to intensify their study beyond the area of specialization already represented by the curriculum. The selected subject will vary with the special interest of the instructor conducting the course in any given year.

TESL C492
Study in a Special Subject (3 credits)
Prerequisite: Permission of the Department. A student repeating TESL C491 registers for credits under TESL C492.

31.330 Theological Studies

Chairman
J.J. RYAN, *Associate Professor*

Professor
M. FAHEY, s.j.

Associate Professors
R.W. BREEN
P. GARNET
J. HOFBECK
S.E. McEVENUE
R.P. MOROZIUK
M. SPICER

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.
The superscript indicates credit value.

60 BA Honours in Theological Studies
Year I
18 THEO elective credits
Year II
24 THEO elective credits
Year III
18 THEO elective credits

NOTE: Students must have their programmes approved by the Department. The following directives should normally be observed:

1. 6 credits should be chosen in each of the theological areas: Old Testament, New Testament, Systematic, Historical
2. 3 credits should be chosen in Ethics
3. 6 credits should be chosen in a non-Christian tradition
4. A maximum of 12 credits may be chosen among the 200-level courses
5. 6 credits may be taken as a cognate course, offered in another department
6. A group of 18 to 24 credits within one area should be planned, in order to assure each student of expertise in some aspect of Theology
7. A reading knowledge of those languages required for advanced work must be planned
8. Students seeking admission to the Honours programme on or after June 1, 1977 will be bound by the Honours requirements outlined in §16.2.4 of this Calendar. Students who already had Honours status by June 1, 1977 will continue to be governed by the requirements which applied at the date of their admission to the Honours programme.

60 Specialization in Theological Studies
With permission of the Department, a student may be admitted to a Specialization programme.
Year I
18 THEO elective credits
Year II
24 THEO elective credits
Year III
18 THEO elective credits

NOTE: Students must have their programmes approved by the Department.

Directives 1 to 7 applying to the Honours Programme will normally apply also to the Specialization.

42 BA Major in Theological Studies
Year I
12 THEO elective credits
Year II
18 THEO elective credits
Year III
12 THEO elective credits

NOTE: Students must have their programmes approved by the Department. One course may be taken as a cognate course offered in another department.

24 Minor in Theological Studies
24 THEO elective credits

NOTE: Students must have their programmes approved by the Department. Three courses must be chosen among the offerings at the 300 level and 400 level. The fourth course (6 credits) may be chosen at any level.

All courses in the Department, with the exception of tutorials, are open to any qualified student of Concordia.

A diploma programme in Theological, Religious, and Ethical Studies is offered jointly by the Department of Theological Studies and the Department of Religion in association with the Department of Philosophy for offerings in ethical studies.

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

Courses of General Interest

THEOLOGY C200
Selected Topics in Theology I (3 credits)
Content will depend on the theme designated by the Department. The theme varies from year to year.

THEOLOGY C202
Selected Topics in Theology I (3 credits)
Content will depend on the theme designated by the Department. The theme varies from year to year.

THEOLOGY C205
Trends in Theology Today I (3 credits)
Major shifts in self-understanding that have led to internal and external restructurings of the Christian Churches. Conceptual and ecumenical changes against the background of contemporary society and social theory. Traditionally disputed theological questions and modern reformulations that have advanced Christian unity.

THEOLOGY C206
Trends in Theology Today II (3 credits)
Prerequisite: THEO C205, or permission of the Department. Further consideration of the themes introduced in THEO C205.

THEOLOGY C210
Christian Beliefs (3 credits)
The Christian assessment of man in the light of belief in God, creation, Jesus Christ, ultimate destiny, and salvation. Specific practices and values of the Christian community. The relationship of church to society as exemplified in social reforms and liberation theology.

THEOLOGY C211
Christianity: Multicultural Perspective (3 credits)
Christianity throughout its history has interacted with Judaism, Hellenism, Islam, Hinduism, Buddhism, Marxism, in other religious cultures and ideologies. This course examines the history of these contacts with their multifaceted results and theological implications.

THEOLOGY C215
Christian Mysticism (3 credits)
A survey of the Christian mystical tradition: outstanding Christian mystics, representative mystical literature, the role of prayer, and ascetic practices.

THEOLOGY C220
The Bible and Western Culture I (3 credits)
A study of the Old and New Testaments: their formation, interpretation, and influence on Western civilization from Moses to the present.

THEOLOGY C221
The Bible and Western Culture II (3 credits)
Prerequisite: THEO C220, or permission of the Department. A continuation of THEO C220.

THEOLOGY C225
History, Culture, and the Christian Way of Life (3 credits)
The response of Christian peoples and communities to the challenge posed by various historical cultures in the shaping of Christian beliefs and practices. Specific themes of interest to North America, such as poverty, healing, and minority religious groups.

THEOLOGY C230
Contemporary Atheism (3 credits)
The Christian of today has to face an accelerated process of secularization and new forms of atheism. This course seeks to analyze the contemporary phenomenon of atheism, to examine its roots, to raise the question of its positive meaning, and to define a Christian attitude towards it. Through this dialogue with atheism, we shall attempt to uncover the essentials of Christianity itself.

THEOLOGY C240
Theology and The Arts I (3 credits)
Classical art and myth: the poetic foundations of theological discourse and their relation to the imagination of the artist.

THEOLOGY C241
Theology and the Arts II (3 credits)
An exploration within recent forms in painting, poetry, and film. Theological reflection to discover the civilizing function of images of God produced by the imagination.

THEOLOGY C264
Theological Dimensions of Psychology I (3 credits)
This course is a theological exploration in psychological studies embracing, a) a critical and constructive consideration of Freud and Jung; b) a survey of neo-Freudian social psychologists, such as Horney and Sullivan; c) a survey of third-force psychologists such as Rogers, Maslow, and May.

THEOLOGY C266
Theological Dimensions of Psychology II (3 credits)
The multifaceted methodology of C.G. Jung; themes relating to psychology and theology.

Introductory Courses

THEOLOGY C300
The Old Testament (3 credits)
A survey of Old Testament texts (in English translation), with an introduction to contemporary methods of interpretation and appreciation.

THEOLOGY C310
The New Testament (3 credits)
The date, authorsip, purpose, structure, and sources of the books of the New Testament. Understanding their content in its historical setting.

THEOLOGY C330
Principles of Systematic Theology (3 credits)
An introduction to the types, methods, tools, and sources of theology. The principal themes of Christian theology are investigated according to their biblical, historical, and philosophical roots.

THEOLOGY C350
Foundations of Christian Ethics (3 credits)
An introduction to the study of Christian ethics; the role of Christian beliefs for a new foundation of ethics in the present intellectual, cultural, and historical situation.

THEOLOGY C360
Christianity in History (3 credits)
The historical dimensions of Christian existence, its institutions, personalities, major events. Methods of inquiry.

THEOLOGY C382
Contemporary North American Judaism I (3 credits)
The sources of authority in Judaism: development of a pharasaic-rabbinic tradition viewed in the light of modern thought.

THEOLOGY C383
Contemporary North American Judaism II (3 credits)
The ideologies of modern religious movements; the theology of the holocaust.

THEOLOGY C385
World Religions I (3 credits)
An introduction to the history and texts of a religious tradition that has deeply marked world history outside the Judeo-Christian streams (e.g. Buddhism, Islam, Hinduism).

THEOLOGY C386
World Religions II (3 credits)
Prerequisite: THEO C385, or permission of the Department. A further study following upon THEO C385.

Advanced Courses
NOTE: With the exception of THEO C471, C472, C498, and C499, all 400-level Theology courses have as their prerequisite an appropriate 300-level Theology course, or its equivalent, with permission of the Department.

THEOLOGY C400
Advanced Topics in Theology I (3 credits)
Prerequisite: Successful completion of an appropriate 300-level course or its equivalent, and permission of the Department. This course focuses on advanced topics of interest in Theology. Content will depend on a theme designated by the Department, and varies from year to year.

THEOLOGY C402
Advanced Topics in Theology II (3 credits)
Prerequisite: A student who has received credit for THEO C400 may register for THEO C402 provided the subject matter is different. This course focuses on advanced topics of interest in Theology. Content will depend on a theme designated by the Department, and varies from year to year.

THEOLOGY C405
The Pentateuch (3 credits)
Prerequisite: THEO C300, or its equivalent with permission of the Department. A reading of selected passages. Discussion of current research into the meaning of these ancient books. Methods of inquiry and their application.

THEOLOGY C406
The Historical Books (3 credits)
Prerequisite: THEO C300, or its equivalent with permission of the Department. A reading of selected passages. Methods of interpreting historical texts in the Old Testament and of determining both their historicity and their meaning will be discussed and applied.

THEOLOGY C407
The Prophetic Traditions (3 credits)
Prerequisite: THEO C300, or its equivalent with permission of the Department. A reading of selected passages. Historical backgrounds will be studied. Current methods for interpreting ancient poetry will be discussed and applied.

THEOLOGY C408
The Psalms and Wisdom Literature
(3 credits)
Prerequisite: THEO C300, or its equivalent with permission of the Department. A reading of selected passages. Current methods for interpreting ancient poetry will be discussed and applied. A variety of literary genres, literary forms, and theological themes will be identified and analyzed.

THEOLOGY C409
Seminar in Old Testament Literature
(3 credits)
Prerequisite: THEO C300, or its equivalent with permission of the Department. A specific book of the Old Testament will be studied in the light of ancient and modern commentaries and of current research.

THEOLOGY C410
Selected Topics in Biblical Theology
(3 credits)
Prerequisite: THEO C300 and C310, or permission of the Department. Selected biblical traditions or themes will be studied as they develop in changing historical contexts.

THEOLOGY C411
The Synoptic Gospels (3 credits)
Prerequisite: THEO C310, or its equivalent with permission of the Department. Exegesis of selected passages in the light of recent scholarship. Studies in their doctrinal contents. Historical inquiry into the works and words of Jesus.

THEOLOGY C412
Acts and the Beginnings of Christianity
(3 credits)
Prerequisite: THEO C310, or its equivalent with the permission of the Department. Acts, Hebrews, James, and I Peter: exegesis of selected passages in the light of recent scholarship, studies in their doctrinal contents. Historical inquiry into the life of the early Church.

THEOLOGY C414
The Johannine Writings (3 credits)
Prerequisite: THEO C310, or its equivalent with the permission of the Department. An examination of Gospel, Letters, and Revelation situated within the context of first-century Christian and non-Christian religious thought.

THEOLOGY C416
The Theology of St. Paul (3 credits)
Prerequisite: THEO C310, or its equivalent with permission of the Department. A historical-critical examination of Paul's theological thought, tracing its development through the chronological sequence of his letters. The focus is on what is central and normative for Christian theology and what is particularly relevant for today.

THEOLOGY C420
Methods in the Study of Religion (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. This course will examine some of the main approaches to the study of religion, giving emphasis to the key problems and techniques of inquiry in these approaches, with special attention to the theological method in its distinctive Christian context.

THEOLOGY C422
Religious Language (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. A study of religious and theological language in relation to other forms of language and expression.

THEOLOGY C428
Nineteenth-Century Criticism of Christianity
(3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. An intro-

ductory consideration of the Enlightenment, in particular Lessing, as theologian. Theological perspectives of Schleiermacher and Hegel. Theological reductions and criticisms of Strauss, Feuerbach, Marx, Kierkegaard, and Nietzsche.

THEOLOGY C429
Twentieth-Century Consciousness of God (3 credits)
Prerequisite: THEO C330, or its equivalent with the permission of the Department. Interrelated themes on the consciousness of God through a study of representative thinkers.

THEOLOGY C430
God (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. A study of the Christian vision of God. Selected readings from classical theologians.

THEOLOGY C431
Theology of Revelation (3 credits)
Prerequisite: Theology C330, or its equivalent with permission of the Department. An inquiry into revelation as a central theme of fundamental theology. The contributions of representative theologians to the development of the theology of revelation.

THEOLOGY C432
Theological Anthropology (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. Different religious interpretations and emphases given to the doctrine of man as the image of God from a theological perspective. The distinctiveness of theological understanding as compared with the methods of philosophy, psychology, natural sciences, and literary studies.

THEOLOGY C434
Word and Sacrament (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. The sharing of religious values through spoken word, scriptures, iconic representation. The use of ritual and symbolic communication in sacramental actions, especially in baptism and eucharist. The possibility of transcultural sharing amid cultural diversity.

THEOLOGY C438
Human Destiny: Theological Dimension (3 credits)
Prerequisite: THEOL C330 or its equivalent with permission of the Department. The interface of Biblical, theological, and scientific data in the understanding they cast on the ultimate destiny of man and his world.

THEOLOGY C440
Theology of the Church (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. The ministry of Jesus and the post-Resurrection community. Belief in the Holy Spirit's presence in the Church. Tasks of Christians in the world. Faith and freedom. Ecclesial teachership and authority. Pastoral office and ministry.

THEOLOGY C442
Jesus Christ (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. The Christian understanding of Jesus Christ. The examination of the mystery of the Incarnation through an analysis of biblical and historical data concerning the person and the work of Jesus Christ.

THEOLOGY C448
Major Christian Theologians (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. Readings and analysis of principal writers who have shaped twentieth-century thought in the Christian tradition. Each year, one particular theologian is chosen for research from writers such as Thomas Aquinas, Karl Rahner, Teilhard de Chardin, Karl Barth.

THEOLOGY C451
Recent Developments in Moral Theology (3 credits)
Prerequisite: Theology C350, or its equivalent with permission of the Department. A study of representative theologians who, in the recent past, have developed new approaches to moral theology and to particular moral problems.

THEOLOGY C453
Bio-Ethics I (3 credits)
Prerequisite: The student must be registered in a programme in Theology, or in Community Nursing or Health Education or the equivalent. A study of the moral aspects of human genetics, experimentation on human beings, behaviour control, health care, death and dying. Those issues of biomedical practices, institutions, and policy-making processes that involve religious values and principles.

THEOLOGY C454
Bio-Ethics II (3 credits)
Prerequisite: THEO C453, or permission of the Department. A continuation of THEO C453.

THEOLOGY C455
Social Ethics (3 credits)
Prerequisite: THEO C350, or its equivalent with permission of the Department. The relation between social sciences and social ethics. Major social ethical practices and discourses of the Christian churches. New approaches to social ethics.

THEOLOGY C456
Ethics and Economic Life (3 credits)
Prerequisite: THEO C350, or its equivalent with permission of the Department. Economic practices, theories, and institutions are studied in relation to their ideational, philosophical, moral, and religious presuppositions. Moral dilemmas faced by businessmen, economists, and corporations. The involvement and responsibility of Christian churches in economic matters.

THEOLOGY C457
Ethics and Politics (3 credits)
Prerequisite: THEO C350, or its equivalent with permission of the Department. A historical and critical examination of the relation between ethics, politics, and religion.

THEOLOGY C458
The Ethics of Human Sexuality (3 credits)
Prerequisite: THEO C350, or its equivalent with permission of the Department. Ethical and theological interpretations of human sexuality in the light of developing insights from the behavioural sciences.

THEOLOGY C459
Selected Topics in Christian Doctrine (3 credits)
Prerequisite: THEO C330, or its equivalent with permission of the Department. Specific teachings or traditions of the Christian faith will be examined in their historical context.

THEOLOGY C460
Historical Fact and Christian Faith (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. Problems posed by the critical historian's judgment of the Christian's faith in the significance of historical events and persons. The scientific secular revolution and the writing of history, the uses of the present and the rethinking of the past, the appearance of modern unbelief, the autonomy of historical judgment and the new understanding of faith. Methodological contributions from scholars such as Ranke, Dilthey, Weber, Collingwood, Tüchle, Aubert, and Marrou.

THEOLOGY C461
Selected Subjects in Early Christianity (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. The developing response of Christianity to challenges presented by the culture, thought, and social structures of the period.

THEOLOGY C462
Eastern Christianity (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. A survey of the historical evolution of Christianity in North-East Africa, the Middle East, South-West India, modern Greece, the Balkan States, the Ukraine, Russia; also, the eastern Christians in the diaspora: Europe, North and South America, Africa, and Australia. This course will focus, too, on the piety, persons, institutions, and religious thought that characterize Christian traditions in this area.

THEOLOGY C463
Selected Subjects in Medieval Christianity (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. The development of theological literature, Christian institutions and popular religious culture in medieval Europe from the beginning of universities to the end of the Great Schism.

THEOLOGY C464
Images of God in Medieval Christianity (1250 - 1500) (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. A study of the spiritual life of late medieval society through a thematic analysis of representations of God in popular forms of religious expression. Liturgical, literary, and artistic representations of God in clerical and lay sources will be treated, with specific attention to late medieval town life.

THEOLOGY C466
Protestant Origins and Their Distinctive Development (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. Characteristic doctrines and movements of Protestantism through the essential phases of their evolution.

THEOLOGY C467
Selected Subjects in Modern Christianity (1500 - 1800) (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. A historical analysis of the events, personalities, and ideas emerging from the religious upheavals of the Reformation and Enlightenment.

THEOLOGY C468
Medieval Foundations of the Church in New France (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. The medieval heritage of the Roman Catholic Church in New France in its spiritual and structural aspects. The feudal church, theocratic institutions, Gallican traditions, missionary orders, parish life, in relationship to the religious and cultural life in New France from its colonization to the British Conquest.

THEOLOGY C469
Selected Subjects in Canadian Church History (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. A historical analysis of Church and sect in the Maritime provinces, the Canadas, and western provinces, from the British Conquest to the present day.

THEOLOGY C470
Selected Subjects in Contemporary Christianity (1800 to the Present) (3 credits)
Prerequisite: THEO C360, or its equivalent with permission of the Department. A study of more recent historical developments, such as the Modernist crisis, the development of Liberalism, ecumenical and liberation movements.

THEOLOGY C471
Women and Christianity (3 credits)
Prerequisite: THEO C360 or permission of the Department. The theological and historical roles of women in Christianity. Female proto-types and images of women in the Old and New Testaments, Fathers of the Church, canon law, medieval theology, the Reformation, and modern theology. The history of women in the development of Christianity.

THEOLOGY C472
The Feminine and the Female in Contemporary Christian Theology (3 credits)
Prerequisite: THEO C360 or permission of the Department. Contemporary Christian thought on women and the role of the feminine in human development and cultural differentiation: a theological and historical critique of these contemporary perspectives within the context of human liberation.

THEOLOGY C498
Theology Tutorial I (3 credits)
Prerequisite: Third-year standing in Honours, Specialization, or Major programme in Theology. Students may choose, in consultation with a tutorial director, a research topic or other specialized work for intense analysis during the final year.

THEOLOGY C499
Theology Tutorial II (3 credits)
Prerequisite: Successful completion of THEO C498. With permission of the Department, in special cases a second tutorial or a continuation of a tutorial under THEO C498 may be given to students who request it.

31.340 Urban Studies

Coordinator
A. MELAMED, *Associate Professor*

The Urban Studies Programme introduces the student, through such disciplines as Economics, Sociology, Geography, and Political Science, to the many areas of research and theory relevant to the modern city and its problems. It also provides the necessary background for later post-graduate specialization in some aspect of urban research, and opportunities for field-work.

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students should consult with the Programme Coordinator prior to registering for Urban Studies courses. Students exempted from any required courses must replace them with others that are relevant to the programme, chosen in consultation with the Programme Coordinator.

66 BA Honours in Urban Studies

Year I
6 URBS C280^{6}*
6 POLI C200^{6}, or C250^{6}
6 ECON C201^{3}, C203^{3}
6 Credits chosen from SOCI C210^{6}, C310^{6}, C311^{6}, C312^{6}

Year II or III
6 URBS C380^{6}
6 GEOG C331^{6}
6 POLI C336^{6}
9 Credits chosen from SOCI C350^{3}, C351^{3}, C353^{3}, C354^{3}

Year III
6 URBS C481^{6}
6 GEOG C433^{6}
3 Credits chosen from ECON C391^{3}, C392^{3}, C396^{3}

**NOTE: URBS C280^{6} will serve as a prerequisite for Urban courses in Sociology or Geography.*

60 BA Specialization in Urban Studies

Year I
6 URBS C280^{6}*
6 ECON C201^{3}, C203^{3}
6 Credits chosen from SOCI C210^{6}, C310^{6}, C311^{6}, C312^{6}

Year I or II
6 URBS C380^{6}

Year II or III
9 Credits chosen from SOCI C350^{3}, C351^{3}, C353^{3}, C354^{3}
6 GEOG C331^{6}

Year III
6 URBS C481^{6}
6 GEOG C433^{6}
3 Credits chosen from ECON C391^{3}, C392^{3}, C396^{3}
6 Elective credits chosen from the courses offered by the following departments or programmes: Economics, Geography, Political Science, Science and Human Affairs, Sociology, Urban Studies. It is assumed that students will consult the Programme Coordinator when choosing these electives.

**NOTE: URBS C280^{6} will serve as a prerequisite for Urban courses in Sociology or Geography.*

42 BA Major in Urban Studies

Year I
12 URBS C280^{6}*, C380^{6}
6 ECON C201^{3}, C203^{3}

Year II or III
6 GEOG C331^{6}
6 Credits chosen from SOCI C350^{3}, C351^{3}, C353^{3}, C354^{3}
3 Credits chosen from ECON C391^{3}, C392^{3}, C396^{3}
6 URBS C481^{6}
3 Elective credits chosen from the courses offered by the following departments or programmes: Economics, Geography, Political Science, Science and Human Affairs, Sociology, Urban Studies. It is assumed that students will consult with the Programme Coordinator when choosing these electives.

**NOTE: URBS C280^{6} will serve as a prerequisite for Urban courses in Sociology or Geography.*

30 Minor in Urban Studies

6 URBS C280^{6}*
24 Credits chosen from URBS C380^{6}, C481^{6}; ECON C201^{3}, C203^{3}, C391^{3}, C392^{3}, C396^{3}; GEOG C331^{6}, C433^{6}; POLI C200^{6} or C250^{6}, C336^{6}; SOCI C350^{3}, C351^{3}, C353^{3}, C354^{3}

**NOTE: URBS C280^{6} will serve as a prerequisite for Urban courses in Sociology or Geography.*

Because of the renumbering of courses in the Department, students should see §200.1 for a list of equivalent courses.

URBAN STUDIES C280
Urban Development (6 credits)

An introductory course in Urban Development using an interdisciplinary approach to the process of urbanization, the city as a social system, the city as an economic system and the built environment. The material will be presented by films, tapes and special readings.

NOTE: Students who have received credit for INTE C280 may not take this course for credits.

URBAN STUDIES C380
Urban Planning in Historical Perspective (6 credits)

This lecture-and-discussion course assesses the development of Canadian cities in general and of Montreal in particular, with special stress on the implications for planning. Topics include the relative importance of geographic site and entrepreneurship in the rise of cities, the metropolitan dominance of, and rivalry between, Montreal and Toronto, the history of the early town planning movement in Canada with discussion of its British roots, the conflict among competing language and cultural groups in Montreal, and the aesthetic and cultural costs of post-war urban redevelopment.

NOTE: Students who have received credit for HIST C380 or INTE C380 may not take this course for credits.

URBAN STUDIES C481
Seminar in Urban Studies I (6 credits)

Seminar limited to second and third year students in the Urban Studies programme. An advanced seminar on the urban phenomenon as it occurs in the Canadian context. It will explore relevant urban issues and seek the development of urban policy positions. Students will be asked to prepare and submit appropriate research policy papers.

NOTE: Students who have received credit for INTE C481 may not take this course for credits.

URBAN STUDIES C483
Seminar in Urban Studies II (3 credits)

Prerequisite: URBS C481 and permission of the Coordinator. Students will complete a field assignment in an urban activity area. The seminar will allow students to discuss, with each other and the professor, their experiences and problems encountered during the field assignment.

NOTE: Students who have received credit for URBS C482 or INTE C482 may not take this course for credits.

URBAN STUDIES C484
Seminar in Urban Studies III (3 credits)

Prerequisite: URBS C481 and permission of the Coordinator. Students will complete a field assignment in an urban activity area. The seminar will allow students to discuss, with each other and the professor, their experiences and problems encountered during the field assignment.

NOTE: Students who have received credit for URBS C482 or INTE C482 may not take this course for credits.

31.400 Computer Science

The Department of Computer Science offers a Minor in Computer Science available to students in the Faculty of Arts and Science. For further details of this programme, see §71.80.4.

For discontinued programmes formerly offered by the Loyola Faculty of Arts and Science and by the Sir George Williams Faculty of Science, refer to §71.8.7 of the 1979-80 University Calendar.

Students in programmes leading to the B.Sc. degree may take for credits to be applied to their programme of concentration any course in Computer Science except the following:

COMPUTER SCIENCE C217
Computers in Society (3 credits)

COMPUTER SCIENCE C251
Introduction to Business Programming (3 credits)

COMPUTER SCIENCE C351
Advanced Cobol Programming (3 credits)

COMPUTER SCIENCE C455
Principles of Data Processing (3 credits)

COMPUTER SCIENCE C456
Information Retrieval (3 credits)

31.410 Courses Offered in Summer Only

ETUDES FRANCAISES

French Summer Institute
Intensive Language Programme

The Concordia French Summer School, a division of the Département d'Etudes françaises and a member of the Association Québécoise des Ecoles de Français, offers courses for regular university credit. The courses, located on Loyola Campus, are of six-week or three-week duration and are open to all students who wish to participate in an intensive French programme.

Credits obtained in the French Summer School may be used as elective credits in Arts and Science Faculty degree programmes but may not be used as credits toward a Département d'Etudes françaises programme (e.g. Certificate, Major, Minor, etc...). Students who have completed a course (or courses) in the French Summer School (Niveau I - V) and who wish to transfer to a 'regular' programme offered by the Département d'Etudes françaises must first consult with the Department.

Courses in the French Summer School are not recognized by the Teacher Classifications Service (Ministère de l'Education du Québec) for purposes of scholarity.

A descriptive brochure is available on request from the Department.

For further details contact:

M. Pascal Normand Truchon, Director
French Summer Institute
Département d'Études Françaises,
Loyola Campus
Phone (514) 482-0320, Ext. 596

Six-week courses:

FRANCAIS C224/C226
(Niveau I) (9 credits)

This course is intended for students having no previous training in French. It includes a comprehensive introduction to the basic structures and vocabulary of French and should enable students to acquire an ability to speak and understand simple conversational French. Both oral and written aspects of the language are presented with special emphasis on oral skills. Laboratory sessions are included.

NOTE: Students must register for both C224/1 and C226/1.

Students who have received credits for FRAN C202 or equivalent will not receive credits for FRAN C224/C226.

Students who complete FRAN C224/C226 in the French Summer Institute and who wish subsequently to enrol in 'regular' department courses will not receive credit for language courses below the level of FRAN C203.

FRANCAIS C234/C236
(Niveau II) (9 credits)

A lecture and laboratory course using the most up-to-date audio-visual methods. This course is specially designed for students who have very little knowledge of French and feel that a very basic review would be profitable.

NOTE: Students must register for both C234/1 and C236/1.

Students who have received credits for FRAN C204 or equivalent will not receive credits for FRAN C234/C236.

Students who complete FRAN C234/C236 in the French Summer Institute and who wish subsequently to enrol in 'regular' department courses will not receive credit for language courses below the level of FRAN C205.

FRANCAIS C244/C246
(Niveau III) (9 credits)

This course is designed for students who understand simple French, but lack conversational fluency. Its purpose is to teach participants to develop a correct and confident form of expression.

NOTE: Students must register for both C244/1 and C246/1.

Students who have received credits for FRAN C205 or C300 or equivalent will not receive credits for FRAN C244/C246.

Students who complete FRAN C244/C246 in the French Summer Institute and who wish subsequently to enrol in 'regular' department courses will not receive credit for language courses below the level of FRAN C301.

FRANCAIS C334/C336
(Niveau IV) (9 crédits)

Pour les étudiants qui ont déjà une bonne connaissance du français, mais qui désirent parfaire leur expression orale et écrite et leur connaissance du milieu québécois. Ce cours peut s'adapter aux besoins de ceux qui veulent pratiquer leur métier ou profession en français.

NOTE: Students must register for both C334/1 and C336/1.

Students who have received credits for FRAN C301 or C302 or equivalent will not receive credits for FRAN C334/C336.

Students who complete FRAN C334/C336 in the French Summer Institute and who wish subsequently to enrol in 'regular' department courses must register for language courses at a level above FRAN C301 and C302.

FRANCAIS C344/C346
(Niveau V) (9 crédits)

Pour les étudiants qui possèdent une connaissance approfondie du français et qui désirent multiplier leurs contacts avec la collectivité québécoise et ainsi parvenir à une juste appréciation des multiples aspects de son milieu culturel.

NOTE: Students must register for both C344/1 and C346/1.

Students who complete FRAN C344/C346 in the French Summer Institute and who wish

COURSES
SUMMER
ONLY
31.410

subsequently to enrol in 'regular' department courses will not receive credit for language courses below the level of FRAN C400.

Three-week courses

At level IV, some regular courses of the Department will be offered for credit in the three-week immersion sessions during the French Summer School providing there is sufficient registration. Students will participate fully in the life and activities of the School.

NOTE: For further information contact the Department.

31.500 Colleges, Institutes, Schools, and Centres

Provost
M. SINGER

Assistant Provost
T. GRAY

The Faculty of Arts and Science is the largest Faculty in the University. It offers programmes based on sound scholarship, together with a high calibre of teaching and research.

In order to combat the depersonalization so often found in a large Faculty, the Faculty of Arts and Science has created smaller, more manageable units offering a personalized approach to education. At present, there are seven such units in existence: Centre for Mature Students, Institute for Co-Operative Education, Liberal Arts College, Lonergan University College, School of Community and Public Affairs, Science College, and Simone de Beauvoir Institute. Each college, centre, school or institute is composed of a group of students and Fellows who are united by a particular philosophy of education.

Each unit operates in much the same fashion. Normally a student admitted to the University will enroll in a specific Department-based programme — a Major, Specialization, or Honours. Students in the Liberal Arts College may, however, elect to enroll in the College Major in Western Society and Culture instead of in a Departmental programme. Similarly, students in the Simone de Beauvoir Institute may enroll in a Major programme in Women's Studies. Students attracted by the particular educational opportunities offered by one of the units of Division IV will apply to the unit in question. Once admitted to the College, Institute, School, or Centre of their choice, students may benefit from the academic curriculum, the extra-curricular activities, and social and intellectual environment provided in each of these units. It is the goal of Division IV to assist students to broaden their specialized disciplinary education with carefully chosen electives, with specially designed tutorials, and with career-oriented advising, all set in a more personal and friendly "university college" environment.

Each unit has a physical location of its own, where its students may gather to exchange ideas, whether in the classroom or in one of the lounges provided for such interaction. As well, there is a library of basic books and periodical literature. From time to time, there will be planned activities, special-interest seminars, and stimulating lectures by invited guest speakers.

Each unit has a group of faculty members from within the University assigned as Fellows or Tutors, whose major function will be to act as student advisers. Together, students and Fellows or Tutors plan a carefully integrated undergraduate programme based on the philosophy of education promoted.

The advantage of this approach to education is that students may utilize the resources of a large Arts and Science Faculty, yet still enjoy the effective interchange of ideas that only a small unit can provide.

31.510 Centre for Mature Students

Director
R. DIUBALDO, *Associate Professor, History*

Associate Director
M.J. COZENS

Fellows
G. AUCHINACHIE, *Associate Professor, English*
M. BRIAN, *Associate Professor, Mathematics*
J. MACALUSO, *Associate Professor, Modern Languages and Linguistics*
C. MACLEOD, *Associate Professor, Biological Sciences*
D. MCELCHERAN, *Associate Professor, Chemistry*
B. OPALA, *Associate Professor, English*
B. SAHNI, *Associate Professor, Economics*
G. TAGGART, *Professor, Etudes Françaises*
J. TASCONE, *Associate Professor, Sociology*

Associate Fellows
A. ADAMS, *Assistant to the Dean of Fine Arts*
D. ADKINS, *Counsellor, Guidance Services*
M. ARMSTRONG, *Professor, Economics*
R. CRONIN, *Associate Professor, Biological Sciences*
B. MARKLAND, *Associate Professor, Accountancy*
R. MCDONALD, *Professor, Applied Social Science*
J. RAWLINS, *Academic Programme Assistant, Faculty of Engineering and Computer Science*
M. SHELDON, *Executive Assistant to the Rector*
R. SMITH, *Associate Professor, Mathematics*

Concordia University has a tradition of concern for the education of mature students; it has always sought to assist students of 21 and over to undertake undergraduate studies.

The primary aim of the Centre for Mature Students is to develop services to students returning to formal studies after an absence of many years. It is difficult to plunge suddenly into a very large urban university after years away from classes and studying; therefore, the Fellows and Staff of the Centre hope to reach out to all Mature-Entry students to offer them encouragement and guidance. The Centre has quarters on both campuses, that function as a "home base" for students who want counselling or are simply in need of some social contact with their peers. Newly equipped lounge facilities are provided in which students may meet.

Furthermore, the Centre has Fellows chosen from a cross-section of faculty members especially interested in the problems encountered by adults working towards a degree. Fellows of the Centre will be on hand at appointed times to offer advice and information on such matters as the choice of initial courses at the outset of studies and the variety of Concordia's programme offerings for those ready to embark on their field of undergraduate concentration. At all times, someone will be present to answer questions on both the Sir George Williams and the Loyola campuses.

It is the intention of everyone involved in the work of the Centre to provide mature students with a sense of belonging and thus help them gain the self-confidence so necessary for successful university work.

The Centre will be open from 9 a.m. to 8:30 p.m., Monday through Thursday, and from 9 a.m. to 5 p.m. on Friday. The Centre for Mature Students has two locations, as follows:

The Sir George Williams Campus
Hall Building
1455 de Maisonneuve Blvd. W.
4th Floor
Suite H-462
Tel: 879-7269, -7271, -7277

The Loyola Campus
Central Building
7141 Sherbrooke Street West
3rd Floor
Room CC-308
Tel: 482-0320, Ext. 263

General Information

The Mature-Entry means of access to the University is designed to enable individuals who are 21 years of age or older, and who have not satisfied the normal admission requirements, but have demonstrated potential, to take undergraduate programmes. The University assumes that the age of the students will have allowed them to acquire informally some of the general education given to younger students at the collegial level and, as a result, the additional credits required of Mature Entrants are intended to supply the knowledge and skills which will be needed to undertake a given programme of specialization.

While they are obtaining these additional credits, mature students are considered in every way to be undergraduates.

The additional number of credits required of students who do not possess the necessary academic prerequisites to start immediately the 90-credit undergraduate programme is set out in §14 of this calendar, where Mature Entrants will also find information about specific requirements, recommended courses, etc.

31.515 Institute for Co-Operative Education

Principal
G.J. TRUDEL, *Associate Professor, Chemistry*

Fellows
L. ADLER, *Associate Professor, Mathematics*
P. ALBERT, *Associate Professor, Biological Sciences*
M. ARMSTRONG, *Professor, Economics*
E. ENOS, *Associate Professor, Exercise Science*
J. FISET, *Lecturer in Education*
M. POSNER, *Technician, Chemistry*
R.E. TOWNSHEND, *Associate Professor, Chemistry*
R.H. ZIENIUS, *Associate Professor, Chemistry*

The Institute for Co-Operative Education at Concordia University now offers Co-Operative Programmes as an integral part of the Departments of Chemistry, Economics and Mathematics.

Co-Operative Programmes are open to students who are enrolled in many of the Honours and Specialization Programmes offered by the above Departments.

It is the intent of the Institute to launch other disciplines in the Co-Op format as it becomes feasible.

The Co-Operative Philosophy

Co-operative education is an educational process in which academic study terms are alternated with work terms in industry, giving students practical on-the-job experience in the area of their choice while continuing their work towards a degree.

Essentially, it is a system that integrates the interests of employer organizations, educators and students towards the attainment of common goals.

The Co-Operative Education concept as practised in a number of Canadian universities, has not only proved viable but has been outstandingly successful in developing career opportunities for students of almost any discipline. So much so, that a recent survey showed that Co-Op students are a university's most marketable product and major companies who have participated in Co-Op programmes readily admit that preference in hiring is given to the Co-Op student. With some companies, the practice has become commom to recruit from among Co-Op graduates when looking for candidates with leadership potential for future positions.

Although the potential rewards from completion of the Co-Op programme are great, students should keep in mind that the programme, with its alternating academic and work terms, is highly demanding.

How Co-Op Works

Admission to Co-Op

Students indicate that they wish to apply to the Co-Op by filling in the appropriate box on the University Admissions Form. Students are also asked to submit a resumé of past work experience and a statement of the reasons for their interest in the programme. Selected students will then be invited to an interview, and asked to expand on reasons for their interest. Students accepted to the programme will be assigned a Coordinator from the Co-Op Committee within the department in which they are registered, as an adviser.

Co-Op Performance Requirements

Accepted applicants to Concordia's Co-Op Institute enrol as regular undergraduates in the programme of their choice and are subject to the academic regulations that apply to their programme. The Co-Op programme consists of six academic terms interspersed with five work terms, one of which is optional, for a total commitment of forty months over four years.

Institute for Co-Operative Education students enrolled in a Major or Specialization must maintain a 'C' average (i.e. 65%) in the required courses, and no grade lower than a 'D' (i.e. 55%) in any course, elective or required. Students registered in Honours must meet the Faculty Honours programme academic requirements.

The evaluation of the four required work terms will be documented on an assessment form completed by the employer and a Work Term Report submitted by the student at the conclusion of each work term. These papers are evaluated by at least two faculty members of the department concerned. The Work Term Reports are not considered for degree credits, and they are marked on a pass/fail basis. Failure to meet the Co-Op Performance Requirements will result in the dismissal of the student from the Co-Op programme and hence the Institute.

The Work Term

The Institute for Co-Operative Education or any department offering a Co-Op plan is not to be construed as a placement operation or a cheap labour apprenticeship. The Work Term is an essential part of the student's learning experience and there is to be equitable remuneration paid for work performed. The process by which students and employers choose each other for the Work Term is as follows.

Initially, as job opportunities are formulated, they will be posted in the Co-Op office early in the academic term preceding a work term. With the aid of their adviser, students will select up to six of the most appealing offers, and compile a resumé and submit an application for interview appointments to the prospective employers through the Co-Op Principal. With the completion of the interviews, the employer and students separately state their order of preference to the Co-Op Principal. He will then combine the two sets of choices to effect the best possible match of employer and student. It must be stressed that the securing of full-time employment after graduation is the responsibility of the

student. During the work term, the Institute will continue to carry out its teaching responsibility by having a Coordinator visit the students at their place of work to evaluate the work performance, gauge the learning opportunities, assess the compatibility of student and employer and, if necessary, take corrective action.

Advantages of a Co-Op Education

The training in theory and practice in a structured and purposeful manner allows the student to come to terms with the realities of professional development in a way that allows for the development of self-confidence, self-reliance and self-motivation. From the work terms, students learn to accept responsibility and the importance of deadlines. Realistic career expectations may be more easily formed. In the Institute, besides technical knowledge and practical experience, students gain skills in interpersonal relations through participation in seminars, workshops, talks and, of course, through social activities.

Employers benefit as well. The employer who agrees to co-operate with the Institute gains through the opportunity to evaluate prospective personnel, without making permanent employment commitments, and the availability of students on a year-round basis. In recruiting permanent employees, they have available to them trained graduates who can be slotted into an operation without a training period. These advantages are seen as rewards in terms of lower turnover in trained personnel as the Co-Op graduates know what their goals are. Hence the economic return is one of much lower recruiting costs for experienced staff. The collaboration between employers and faculty provides an opportunity for employers to contribute to the educational process and to gain clearer insights into the University's resources from which he can draw.

UNDERGRADUATE PROGRAMMES

Chemistry Co-Op

The Chemistry Co-Operative Programme is offered to students who are enrolled in the B.Sc. Honours or Specialization in Chemistry, Specialization in Biochemistry or Specialization in Analytical Chemistry.

Students in CHEM Co-Op take the regular academic programme; however, in the work terms the employment opportunities range among a wide variety of industrial and government agencies located throughout Canada. Students are encouraged to choose their work term positions in a way which provides them with experience ranging from basic analysis in industrial processes and environmental control to senior research placements in the laboratories of various employers.

Economics Co-Op

The Economics Co-Operative Programme enables students to complete a Co-Op degree in a B.A. Honours or Specialization in Economics. The academic content of the Economic Co-Op programmes is identical with the regular programme; however, the required work terms provide the Co-Op student with the unique opportunity of experiencing economics in an applied format. Because of the variety of course choices, an Economics Co-Op student is prepared to seek employment during his or her work terms in a variety of public sectors including Provincial and Federal Government agencies. Private sector positions might include placements in banks, consulting firms, or planning departments in a variety of industries.

Mathematics Co-Op

Math Co-Op is open to students who are admitted to the B.A. or B.Sc. Honours or Specialization in Applied Mathematics or Statistics or Specialization in Actuarial Mathematics.

The academic content of the Math Co-Op programmes is identical to the regular programmes. However mathematics, as a respected academic subject, is an important training for an ever-growing multitude of disciplines.

Students pursuing an Honours or Specialization in Applied Mathematics or Statistics would, we envisage, be employed during their work terms in a variety of business, government, or scientific environments.

CO-OP SCHEDULE

Activity **flow-chart** for a single group of students in the University co-operative education programme.

YEAR	FALL SEPT.-DEC.	SPRING JAN.-APRIL	SUMMER MAY-AUG.
1	1st Year Campus Term	1st Year Campus Term	1st Year Work Term
2	2nd Year Campus Term	2nd Year Work Term	2nd Year Campus Term
3	2nd Year Work Term	3rd Year Campus Term	3rd Year Work Term
4	3rd Year Campus Term	3rd Year Work Term	

NOTE: The above activity flow chart is for a student admitted into a Co-Op programme in the Fall term of the student's first academic year. For a student admitted after the first year, and, at the start of his second, the academic work-term sequence is that from the 2nd year campus term onward. No student is considered for admission to any Co-Operative programme after the 3rd academic term.

CONTACTS

Loyola Campus
Telephone (514) 482-0320

Dr. G.J. Trudel, Principal
Institute for Co-Operative Education
Extension 331

Mr. John Fiset, Assistant Principal
Extension 321

Mrs. Doris Tooby
Extension 332

Sir George Williams Campus
Dr. R.E. Townshend, Director,
CHEM Co-Op (514) 879-5963 or 5965

Prof. Muriel Armstrong, Director,
ECON Co-Op - (514) 879-5835

Prof. L.S. Adler, Director,
MATH Co-Op (514) 879-5829

31.520 Liberal Arts College

Principle
F. KRANTZ, *Associate Professor, History*

Vice-Principal
H. SHULMAN, *Associate Professor, Political Science*

Fellows
A. ADAMSON, *Professor, History*
M. BROSS, *Associate Professor, Psychology*
J.S. HERZ, *Associate Professor, English*
H. HUTTER, *Associate Professor, Political Science*
J.F. LAFFEY, *Professor, History*
R. MARTIN, *Associate Professor, English*
G. RUDE, *Professor, History*
V. ZEMAN, *Associate Professor, Philosophy*

Visiting Scholar
M. ROWAN, *Associate Professor, Modern Languages and Linguistics, Brooklyn College*

Liberal Arts College provides students with a broad, demanding educational foundation in the liberal arts. Its curriculum is an alternative for students dissatisfied with premature specialization and fragmentation of knowledge. Defining the "liberal arts" in contemporary terms, the College stresses work in a Core Curriculum of related courses, seminars, and tutorials in the humanities, social sciences, art, music, and science. Its core courses stress the acquisition of basic knowledge and research and writing skills, as well as an awareness of interpretative problems and advanced analytic approaches. The Core Curriculum, in turn, makes for informed choices in the College's second major component, advanced work, and research in a specific discipline or area.

Objectives

The major goal of Liberal Arts College is to assist the student in the process of becoming an educated person. The College seeks to translate into modern idioms the traditional vision of education as a preparation for life. Its core courses and seminars, sharing a common concern with the changing nature of society and culture, aim at the development of an informed critical consciousness.

Emphasis is also placed on sharpening the basic expressive and analytic tools indispensable to social and cultural understanding. All College students are expected to present, or to acquire, a knowledge of a second language (normally, French), necessary for their research, and to write and to express themselves clearly. Training in research techniques is stressed, and original, independent work encouraged.

Liberal Arts College, linking demanding general education to significant specialization, is committed to serious intellectual work. Through its curriculum, staff, standards, and academic environment, it hopes to communicate the excitement and creativity of such engagement to its students.

Liberal Arts College Admissions and Programme Requirements

Students admitted to the University and seeking to enter the College must have a "B" average from CEGEP, or its equivalent. All students upon admission must demonstrate proficiency in English composition and a second language, or undertake necessary make-up work.* All applicants should apply through the University Admissions Office; they should also call or write the College for an interview. Mature students are admitted to the College on the basis of an interview and an examination of their record. Full-time degree candidates will normally complete their College Core Curriculum within three academic years; part-time degree candidates should complete their College Core Curriculum within six academic years. Students who have been admitted to departmental Honours programmes must maintain a "B" average in their College Core Curriculum; all others must maintain a "C" average in their College Core Curriculum. All Honours students in the College are expected to undertake significant original work, on a staff-guided basis, in their final year.

**Les étudiants francophones devront donner la preuve de leur connaissance de la langue anglaise.*

Staff

Faculty Fellows chosen from the University's departments form the staff of all College courses, seminars, and tutorials. Teaching Fellows are resident in the College, as is its Principal, who also teaches in the Core Curriculum. It is intended that, each year, a Distinguished Visiting Fellow, selected on the basis of outstanding academic achievement and renown, will be resident and will teach in the College.

Facilities

Liberal Arts College is located on Concordia University's downtown Sir George Williams Campus. Much of its seminar and tutorial teaching is done in the same building that houses the College's Principal and Senior Fellows. The College has student study areas, a course-materials library, and audio-visual facilities, as well as Common Rooms and a collection of important newspapers, journals, and periodicals. The College is the focus of an extra-curricular programme of visiting speakers and cultural events, and is a place where the exchange of ideas and views generated in courses and seminars continues on a more informal basis.

Counselling

Close student-faculty contact and exchange is part of the Liberal Arts College's stress on serious intellectual work. Each student is assigned to a faculty Fellow who acts as a personal adviser, and who follows the student's progress through the College, advising on the choice of disciplinary or area specialization. All students' work is evaluated annually by the Principal and Fellows.

College Council

Council, composed of Fellows and students, is the formal decision-making body of Liberal Arts College. It meets regularly, under the chairmanship of the Principal, as a forum in which current issues and future policy are discussed and decisions taken. Council is that body which ensures the democratic participation of all members of the College in its on-going academic and extra-curricular work.

Programmes

All Liberal Arts College students must take the Core Curriculum. These inter-related courses, including seminar and tutorial work, as well as the final-year Integrative Seminar, constitute a significant segment of the course work required for College-sponsored B.A. programmes. Liberal Arts College stresses Honours work, although a student may, with the permission of the College, combine the Core Curriculum with a departmental Specialization or Majors programme, or with the Individual Studies Programmes. Selected students may, with College permission, be admitted to the College's BA Major in Western Society and Culture.

42	**Liberal Arts College - Core Curriculum**
	Year I
18	LBCL C291[6], C292[6], C293[6]
	Year II
12	Chosen from LBCL C391[6], C392[6], C393[6]
	Year III
6	LBCL C490[6]
6	Chosen from LBCL C391[6], C392[6], C393[6]

In addition to completing the Core Curriculum, students must meet the Faculty of Arts and Science degree requirements and complete a departmental Major, Specialization, or Honours programme, or the Individual Studies Programme or the Major in Western Society and Culture.

The Core Curriculum may also be applied towards Specialization or Honours work in the Individual Studies Programme. (See §31.170 of this calendar).

Alk College students must consult with a College adviser before selecting courses in other disciplines or fields. Generally, courses in the Liberal Arts College are open only to members of the College.

Honours candidates must maintain a "B" average in their College courses, with no grade lower than a "C". Students in a Major or Specialization programme must maintain a "C" average in their College courses, with no grade lower than a "D".

42	**BA Major in Western Society and Culture**
	Year I
18	LBCL C291[6], C292[6], C293[6]
	Year II
12	Chosen from LBCL C391[6], C392[6], C393[6]
	Year III
6	Chosen from LBCL C391[6], C392[6], C393[6]
6	LBCL C490[6]

In order to complete the requirements for the Major in Western Society and Culture students must take, in consultation with the Liberal Arts College, an additional 24 credits within one department of the Faculty.

Further information on core courses and College programmes generally may be obtained either by writing for the Liberal Arts College Informational Brochure or by calling the College Secretary (2020 Mackay St., Montreal, Quebec, H3G 1M8, tel: 879-8051). Personal interviews with a Fellow of Liberal Arts College may be arranged through the Secretary.

Admission into a Departmental Honours Programme requires the approval of the Department.

Students seeking admission to a Departmental Honours Programme will be bound by the Honours requirements outlined in §16.2.4 of this calendar.

COURSES

LIBERAL ARTS COLLEGE C291
Structure and Dynamics of Western Civilization (6 credits)

Prerequisite: Registration in the Liberal Arts College, or permission of the College. A study of the changing relations between productive structures, socio-political institutions and cultural traditions from antiquity to the present. This course emphasizes the analysis of social change over time, and requires reading in a variety of primary sources and secondary materials. Primary sources such as Aristotle's *Politics*, Aquinas' *Summa Theologiae*, and Rousseau's *Social Contract*, and works such as Marc Bloch's *Feudal Society, and Eric Hobsbawm's Age of Revolutions* will be read.

LIBERAL ARTS COLLEGE C292
Modes of Expression and Interpretation (6 credits)

Prerequisite: Registration in the Liberal Arts College, or permission of the College. A survey of major Western literary, religious, and philosophical traditions, involving the reading and interpretation of significant primary texts from antiquity to the contemporary period. Emphasis is placed on development of writing skills and interpretive analysis. Works such as the *Odyssey*, Plato's *Republic*, Goethe's *Faust*, and Dostoevsky's *Crime and Punishment* will be studied.

LIBERAL ARTS COLLEGE C293
Art and Aesthetic Experience (6 credits)

Prerequisite: Registration in the Liberal Arts College, or permission of the College. An integrated course in the nature and development of music and the visual arts, with work in criticism and aesthetic theory. The course examines artistic expressions through thematic and chronological approaches and includes attention to issues concerning the creative process and the relation of art to society. Slide viewing and music listening are part of the course.

LIBERAL ARTS COLLEGE C391
Contemporary Civilization (6 credits)

Prerequisite: LBCL C291, C292, C293, or permission of the College. Analysis of the dynamic relations between individual, state, and society in the recent contemporary world. Classical perspectives and contemporary analysis derived from the social sciences will be brought to bear on selected social, economic, ideological, and political problems. Students will read from such works as Hegel's *Phenomenology,* M. Weber's *Economy and Society,* Marx's *Capital* and S. Freud's *Interpretation of Dreams.*

LIBERAL ARTS COLLEGE C392
The Sciences in Society (6 credits)

Prerequisite: LBCL C291, C292, C293, or permission of the College. An introduction to the nature, development, organization, and social consequences of the scientific enterprise. Issues in the philosophy, sociology, and history of science, as well as in the relation of technology to science and to society, are emphasized. Works such as E.R. Dodds, *The Greeks and the Irrational,* T.S. Kuhn, *The Structure of Scientific Revolutions,* and R.K. Merton's *Science, Technology and Society,* will be read, as well as a number of original sources such as Bacon's *The New Organon* and Darwin's *Origin of Species.*

LIBERAL ARTS COLLEGE C393
Contemporary Modes of Expression and Interpretation (6 credits)

Prerequisite: LBCL C291, C292, and C293, or permission of the College. An advanced seminar organized on a topical and thematic basis and emphasising intensive, sustained analysis of a limited number of fundamentally important literary, religious, and philosophical works. Stress is placed on bringing critical and interpretative approaches to bear on the texts in a series of extended written papers. It permits the requisite sustained analysis of authors such as Nietzsche, Yeats, Beaudelaire, Kierkegaard, Mann, and Joyce.

LIBERAL ARTS COLLEGE C490
Integrative Seminar (6 credits)

Prerequisite: Two of LBCL C391, C392, C393, or permission of the College. The College research seminar will relate the student's disciplinary or area specialization to the general perspectives of the Liberal Arts College Core Curriculum. The seminar topic will vary from year to year, and students will be required to produce a significant research paper.

31.530 Lonergan University College

Principal
S. McEVENUE, *Associate Professor Theological Studies*

Fellows
M. CHARLAND, *Lecturer, Communication Studies*
C. DAVIS, *Professor, Religion*
M. DOUGHTY, *Associate Professor, Chemistry*
C. FONDA, *Professor, Modern Languages and Linguistics*
M. HOGBEN, *Assistant Professor, Chemistry*
D. KETTERER, *Professor, English*
N. KLEIN, *Associate Professor, Anthropology*
P. MORLEY, *Professor, English*
M. SHAMES, *Associate Professor, Psychology*
M. TAYLOR, *Assistant Professor, Applied Social Science*

Associate Fellows
C. BERTRAND, *Associate Professor, History*
M. POIRIER, *Assistant Professor, Political Science*
D. TADDEO, *Dean, Division I, Faculty of Arts and Science*

Visiting Scholar
A. PAREL, *Professor, Political Science, The University of Calgary*

General Philosophy

Lonergan University College is named after Dr. Bernard Lonergan, a former student and, later, a professor of Loyola College, Montreal, who has since moved on to an international career. He is recognized throughout the Western world as one of the most significant thinkers in this century.

The Fellows of Lonergan University College are convinced that the deepest issues of life are implicitly involved in all the academic disciplines, and that both honesty and sanity demand that we attend to this fact and reflect upon it. The College is not governed by any religion or church, but is directly concerned with human aspirations, with ultimate values, and with the attempts of human institutions to serve this vitality. It asks questions that arise at the authentic centre of humanity, questions about meaning, about soul, about the spiritual, about God.

Lonergan University College offers its students all the resources of Concordia University. Lonergan students take a regular degree programme in the department of their choice on either of the two campuses of Concordia University. Moreover, the College aims to contribute to a style of life which will heighten intellectual experience and enrich personal growth during the student's university years. It does this, not by claiming to "raise standards", but rather by demanding that its students relate what they learn to their personal lives and deeper values.

A university is the place where the universe should be discussed and intellectually appropriated. Conversation, as much as courses or research, is at the heart of university life. It is precisely this aspect of university life that has been undermined in this century by the incredible growth in knowledge itself, and by the proliferation of specialties. What universal knowledge is now possible? What do students have in common to discuss?

Lonergan University College believes that there is something in common to be discussed, and dedicates its resources to assure the depth and vitality of that discussion. It involves all its members, both students and Fellows, in structured conversation that will grow in breadth and meaning through the three years of a student's university career.

Objectives

Lonergan University College exists for students and professors who enjoy intellectual activity, and who desire a fully human education. In a university context we are invited to work at the higher levels of awareness and responsibility. To this end, University departments provide us with reasoned knowledge and with fully elaborated methodologies. We believe, however, that the dynamic of human inquiry goes beyond this expertise to further questions about the knower and about his/her place in society and in the universe.

Consequently, the College has adopted an educational strategy which is *empirical, interdisciplinary,* and *value-oriented.* This strategy is *empirical* in the sense that all knowing begins with inquiry about experience of the world and of ourselves as subjects. Resulting judgement of truth and value must be verified through a methodologically precise appeal to this experience. This strategy is *interdisciplinary* because central and ultimate issues of human life are involved in all the disciplines of knowledge; and because many of these issues can be understood only from the perspectives of several such disciplines. It is *value-oriented* because the objects of knowledge are also objects of care and love; and because human living does not end in knowing. Human inquiry extends to evaluative knowledge, decision-making, involvement, commitment.

Following this strategy, Lonergan students specialize in departmental programmes of their choice, and are encouraged to deepen this focussed study as much as possible. At the same time, within the College, Lonergan students use their departmental study as a resource in working with students and follows from other departments on a common intellectual project. The project is selected by the College Council each year. It consists of reading, understanding, and personally engaging a great classic, the work of a thinker who has marked and shaped our civilization. The

experience of sharing such projects over several years, enables Lonergan students to become aware of their own intellectual horizons and values, and to encounter broader and deeper possibilities. Progress in departmental study is integrated with progress of a more subjective nature. In this strategy, conversation becomes a continuous and pleasurable process of intellectual growth.

An example of foundations for this general philosophy of education may be found elaborated in the works of Bernard Lonergan, a scholar whose thought has been the subject of research, dissertations and published books on several continents. It is for this reason, and because he began his career as student and professor here, that the College was named Lonergan University College.

Programmes

1. Students must meet the degree requirements of the Faculty of Arts and Science, and complete either a departmental or interdisciplinary Major, Specialization, or Honours programme.

2. Lonergan students will be required to attend the College Seminar (3 credits) within the span of each academic year (or 30 credits), for a total of 9 seminar credits in three years (i.e., C302, C304 and C306). Students who enter the College after already completing 30 credits, and who will be at Concordia during only 2 more academic years, may substitute the missing seminar credits with a Lonergan approved elective course.

Lonergan University College
Required Curriculum

9 LUCC C302[3], C304[3], C306[3]

In addition to completion of the required 9 seminar credits, 6 of the students' elective credits must be chosen with the approval of Lonergan University College.

College Facilities and Activities

The College is situated on the Loyola Campus of Concordia University; at 7302 Sherbrooke Street West.

The College is governed by a set of by-laws, and by a College Council composed of students and Fellows.

The central activity of the College is its weekly seminar. The seminar focuses each year on the work of a major thinker, one who has decisively influenced our culture for good or for evil. The topic will change each year, but the depth of human integration and social awareness of the authors we choose ensures continuity in our discussion. As participants in the seminar are competent in diverse academic disciplines, an understanding of the topic develops which on the one hand does justice to the diversity of contemporary awareness, and on the other demands levels of understanding which transcend technical jargon. An internationally recognized scholar will be invited to come to Lonergan University College as the "Distinguished Visiting Fellow", to lead the College Seminar. The Visiting Fellow will also give university lectures and public addresses, as seem appropriate.

Each student of Lonergan University College joins with a small number of others to form a seminar group. College Fellows will direct the group and be available for academic advising to students. These groups will meet for two hours every week.

Students and Fellows will be encouraged to share in College government, to participate in College events, and, in various ways, to make the College the centre of their lives at the University.

The College offers a comfortable lounge, a specialized library, and several quiet rooms for study. It also has a research centre for Longergan studies with a complete set of manuscripts, and of published works.

Admissions and Applications

Students seeking admission to the College should fill in the appropriate section (Box D) of the University Admissions Application form. Interested students may also contact the College directly by phoning 482-0320, Ext. 697, or by coming to the College, 7302 Sherbrooke Street West (corner of Sherbrooke and West Broadway avenues), or else by writing to the College at the following address: 7141 Sherbrooke Street West, Montreal, Quebec, H4B 1R6. Each candidate for admission will be invited to an interview with one of the College Fellows.

COURSES

LONERGAN UNIVERSITY COLLEGE C302
College Seminar I (3 credits)

Prerequisite: Permission of the College. The seminar will focus on a small number of great works central to our civilization. Different works will be selected each year, ranging from Plato's *Republic* to Bergman's films. Seminar members will examine these works in the appropriate intellectual contexts. Further goals will include a personal dialectic with these works, in so far as they imply values.

LONERGAN UNIVERSITY COLLEGE C304
College Seminar II (3 credits)

Prerequisite: Permission of the College. The seminar will focus on a small number of great works central to our civilization. Different works will be selected each year, ranging from Plato's *Republic* to Bergman's films. Seminar members will examine these works in their appropriate intellectual contexts. Further goals will include a personal dialectic with these works, in so far as they imply values.

NOTE: Students who have completed LUCC C302 will register under LUCC C304, provided the subject matter is different.

LONERGAN UNIVERSITY COLLEGE C306
College Seminar III (3 credits)

Prerequisite: Permission of the College. The seminar will focus on a small number of great works central to our civilization. Different works will be selected each year, ranging from Plato's *Republic* to Bergman's films. Seminar members will examine these works in their appropriate intellectual contexts. Further goals will include a personal dialectic with these works, in so far as they imply values.

NOTE: Students who have completed LUCC C304 will register under LUCC C306, provided the subject matter is different.

LONERGAN UNIVERSITY COLLEGE C320
Lonergan University College Selected Topics (6 credits)

Prerequisite: Permission of the College. Courses offered under this title will investigate appropriate topics in the Humanities,

Social Sciences, and Natural Sciences from an interdisciplinary perspective. The subject matter will generally be considered in the context of philosophical and religious concerns.

LONERGAN UNIVERSITY COLLEGE C322
Lonergan University College Selected Topics (6 credits)

Prerequisite: Permission of the College. Students who have received credit for LUCC C320 may register for LUCC C322, provided the subject matter is different.

LONERGAN UNIVERSITY COLLEGE C330
Lonergan University College Selected Problems (3 credits)

Prerequisite: Permission of the College. Courses offered under this title will investigate appropriate topics in the Humanities, Social Sciences, and Natural Sciences from an interdisciplinary perspective. The subject matter will generally be considered in the context of philosophical and religious concerns. The topics dealt with in this 3-credit course will be different from those offered in LUCC C320.

LONERGAN UNIVERSITY COLLEGE C332
Lonergan University College Selected Problems (3 credits)

Prerequisite: Permission of the College. Students who have received credit for LUCC C330 may register for LUCC C332 provided the subject matter is different.

31.540 School of Community and Public Affairs

Principal
K. BINDON, *Assistant Professor, History*

Fellows
S. CARTER, *Associate Professor, Applied Social Science*
G. CHARPENTIER, *Associate Professor, Etudes Françaises*
G. DECARIE, *Associate Professor, History*
W. GILSDORF, *Associate Professor, Communication Studies*
H. GUINDON, *Professor, Sociology*
J. HILL, *Associate Professor, History*
F. KNELMAN, *Professor, Science and Human Affairs*
A. MELAMED, *Associate Professor, Urban Studies/Geography*
M. STELCNER, *Associate Professor, Economics*
G. VALASKAKIS, *Associate Professor, Communication Studies*
R. WILKINS, *Institute for Research on Public Policy*

Associate Fellows
H. ANGELL, *Associate Professor, Political Science*
F. BIRD, *Associate Professor, Religion*
L. CRYSLER, *Associate Professor, Journalism*
A. ROSS, *Assistant Professor, Political Science*
M. SHELDON, *Executive Assistant to the Rector*
W. SIMS, *Assistant Professor, Economics*

Objectives of the School

Community and Public Affairs is a diverse and rapidly growing field of activity. In general, it includes the institutions and processes through which concerned citizens and organized groups interact so as to improve the collective well-being of their communities. The many professionals who work in this area are concerned with community building in all its dimensions.

The purpose of the School of Community and Public Affairs is to prepare candidates for positions either in the public or private sectors as public affairs specialists. The School will also prepare students who wish to pursue post-graduate work in public affairs or public administration. The curriculum aims at the blending of vocational and scholarly values so as to produce graduates who are well educated in a broad sense.

Students enrolled in the School will benefit from a unique combination of the following components:

1. an internship programme within which students will receive credit for working in a public-affairs-related job;
2. a bilingual (French-English) environment within which to pursue their studies;
3. a combination of a Major, Specialization, or Honours in a discipline (History, Sociology, etc.) with what is essentially a multidisciplinary programme;
4. a common institutional setting for colloquia, discussion, and study relevant to community and public affairs.

One of the primary aims of the School is to provide an environment that is conducive to discussing and learning about public affairs. We believe, therefore, that what students do outside of formal courses is as important as the classroom experience itself. The historic building which the School now occupies is ideal inasmuch as it facilitates personal contact and easy communication between students and visiting practitioners. School facilities include a common room, reading room and documentation centre, a seminar room, faculty and student offices.

The School also houses the independent Institute for Research on Public Policy, one of Canada's best-known policy institutes. Students will benefit from on-going contact with the Institute's research personnel and from the extensive resources which it brings to the School.

The School Programme

Students who enrol in the School of Community and Public Affairs will follow a programme composed of the following elements:

1. The Core Courses (36 credits)

All Students must take the following:

ECONOMICS C201
Introduction to Microeconomics (3 credits)

ECONOMICS C203
Introduction to Macroeconomics (3 credits)

HISTORY C203
History of Canada, Pre-Confederation (3 credits)

HISTORY C205
History of Canada, Post-Confederation (3 credits)

POLITICAL SCIENCE C250
Canadian Government and Politics (6 credits)

SOCIOLOGY C200
Introduction to Sociology (6 credits)

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C301
Modular Seminar I (3 credits)

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C401
Modular Seminar II (3 credits)

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C410
Internship (3 credits)

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C411
Internship Research Project (3 credits)

2. The Disciplinary Programme

Members of the School of Community and Public Affairs must also pursue a departmental or interdisciplinary Honours, Specialization or Major programme.

Performance Requirement and Exemptions Policy

Students are required to maintain an overall average of 70%. In addition, all members of the School of Community and Public Affairs are expected to participate fully in the operation of the School.

Where exemptions are granted for any of the core courses, students are required to replace them with an equal number of credits chosen in consultation with the SCPA adviser.

Entrance Requirements

Students admitted to the University and seeking to enter the School must have achieved a "B" average, or the equivalent at the previous educational level. Students wishing to enter the School will be interviewed personally. In exceptional circumstances, a candidate who has failed to meet the grade requirement will be admitted on the basis of a personal evaluation of potential capacities, as against those realized in previous studies. Each student enrolled in the School will have to demonstrate a working knowledge of English and French. Language proficiency tests will be administered by the relevant language department, but final evaluation will be the responsibility of the School.

For further information on curriculum, programmes, personnel, and objectives, please call the Principal, at 879-8507.

COURSES

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C301
Modular Seminar I
(3 credits)

Prerequisite: Permission of the School of Community and Public Affairs. Under the direction of a Resident Fellow, the Seminars, which will be presented by practising professionals drawn from public or private agencies, will consist of a series of "modules" of approximately 3 weeks duration. The modules will be problem oriented and will focus on specific functions and areas in public affairs in order to equip students with a range of skills needed to pursue careers in the field. Topics will vary from term to term and may include: Leadership, Decision-Making, Budgeting, Programmme Evaluation, Human Resource Development, Motivation, Conflict Resolution, Planning and Forecasting, Ethics and Public Choice, Intergovernmental Relations.

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C390
Special Area Study in Community and Public Affairs(3 credits)

Prerequisite: Permission of the School of Community and Public Affairs. A second-year lecture course which focuses on a specific aspect of public policy in areas of community and public affairs. Topics will vary from year to year in order to best use the areas of interest of the professional staff and visiting lecturers.

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C391
Special Areas Study in Community and Public Affairs(3 credits)

Prerequisite: Permission of the School of Community and Public Affairs. Students who have received credit for SCPA C390 may register for SCPA C391 provided the subject matter is different.

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C401
Modular Seminar II(3 credits)

Prerequisite: SCPA C301 and permission of the School of Community and Public Affairs. This seminar will normally be taken by students in their second year. Under the direction of a Resident Fellow seminars will be presented by practising professionals drawn from public or private agencies. The modules will be problem oriented and will focus on specific functions and areas in public affairs in order to equip students with a range of skills needed to pursue careers in the field.

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C411
Internship (3 credits)

Prerequisite: Permission of the School of community and Public Affairs. An essential part of the School's programme is a one-semester apprenticeship in some aspect of community and public affairs. After completing 60 credits of the BA programme, including a significant portion of the School's core, students are required to complete a practicum that will allow them to test their ideas in a real situation. Placements may be drawn from all areas of possible employment, including the private sector, government and community service organizations. Students are expected to participate fully in finding and defining possible internships. Employers will be asked to join in an evaluation of the work period.

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C412
Research Project (3 credits)

Prerequisite: SCPA C411. Students who have completed their internship are required to prepare a research brief on some aspect of their practical experience. After consulting with employers and tutors, students will select a topic or problem relevant to the job they performed. They will undertake such research and analysis as may be required by the nature of the topic and will submit their findings in a written report at the end of the academic session. Successful completion of the course will involve an oral presentation of the brief to a seminar of Fellows and Associates of the School. In unusual circumstances, SCPA C411 may be taken concurrently with SCPA C410 with permission of the School.

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C490
Advanced Seminar in Community and Public Affairs(3 credits)

Prerequisite: Permission of the School of Community and Public Affairs. An advanced seminar which focuses on a specific aspect of public policy in areas of community and public affairs. Topics will vary from year to

year in order to best use the areas of interest of the professional staff and visiting lecturers.

SCHOOL OF COMMUNITY AND PUBLIC AFFAIRS C491
Advanced Seminar in Community and Public Affairs (3 credits)

Prerequisite: Permission of the School of Community and Public Affairs. Students who have received credit for SCPA C490 may register for SCPA C491 provided the subject matter is different.

31.550 Science College

Principal
E.B. NEWMAN, *Professor, Biological Sciences*

Fellows
P. BIRD, *Associate Professor, Chemistry*
W. BYERS, *Associate Professor, Mathematics*
N. EDDY, *Associate Professor, Physics*
H. ENESCO, *Professor, Biological Sciences*
D. GINTER, *Associate Professor, History*
M. HERRINGTON, *Assistant Professor, Biological Sciences*
M. KOMODA, *Associate Professor, Psychology*
C. LANGFORD, *Professor, Chemistry*
N. SEGALOWITZ, *Associate Professor, Psychology*
R.C. SHARMA, *Associate Professor, Physics*
J. STEWART, *Professor, Psychology*
O.S. TEE, *Associate Professor, Chemistry*

In the Science College, students will gain an understanding of several areas of science, while specializing in whichever one they choose. Curricular structures frequently restrict students to one discipline or another. To help overcome this, the Science College has designed a series of courses to show what practising physicists think about physics; what mathematicians do when they are thinking mathematics: - not "an introduction to", but "the state of the art".

The Science College provides an opportunity for students to become acquainted with science as practised and understood by scientists today. Its curriculum is planned to allow students to specialize in any one of the disciplines of science, while, at the same time, fulfilling the goal of the College - to provide an opportunity for research experience, for thinking about the nature of science, and for becoming aware of the style and content of the various scientific disciplines.

In the Science College, students will have the opportunity to participate in research. In order to introduce the students to the reality of scientific research, a programme of independent study has been designed which will allow the students to be involved in research in each of their university years.

In the Science College, students will be provided with an opportunity to consider the nature of science. The Science College offers courses in the intellectual and social context of science. Designed for science students in particular, these courses raise questions of interest to scientists and are based upon an understanding of the subject matter of science.

Facilities

The College has its own premises located on the twelfth floor of the Hall Building at the downtown Sir George Williams Campus. The College offers students the opportunity and facilities to discuss matters of interest among themselves and with their professors. The Science College also offers a number of courses and invites scientists to visit the University to meet College students.

Requirements for Admission to the Science College

The programme of the Science College is academically demanding, involving concentration in one discipline and a critical investigation of other aspects of science. The College is committed to serious academic work and high standards, and is planning to attract talented students who are willing to work hard in a search for an understanding of science.

The Science College represents a new departure at Concordia's downtown campus. Students must enrol in a science programme that leads to a B.Sc. degree in order to be part of the Science College. Students registered for a B.A. in Journalism are also eligible for membership in the College.

In addition to the normal requirements for admission to the University's various programmes, applicants are expected to have a good academic average. They will be considered on the basis of their academic record, and a personal interview. They will also be encouraged to submit an example of their own work for consideration.

Students must be prepared to attend courses at times outside the normal University schedule. The College is open to full-time students only.

Science College and Journalism

A limited number of students who have been admitted to the Major in Journalism programme may be allowed to register in the Science College, with a view to combining a basic understanding of science with a training in journalism. For such students, a second six-credit course in the historical, philosophical, and social aspects of science will be offered. Other members of the College will have the option of taking this course if they so desire.

Performance Requirement

Students in the College must maintain a "B" average in courses offered by the College, with no grade lower than a "C".

Further Information

Further information on the courses and activities of the Science College may be obtained either by writing to:

Concordia University
Science College
Room H-1270
1455 de Maisonneuve Blvd., West
Montreal, Quebec
H3G 1M8

or by telephoning the College office at 879-4160. Personal interviews with a Fellow of the Science College may be arranged through the Science College office.

Science College Core Curriculum

The College offers a core of courses which are required of all students. This core consists of 30 of the 90 credits normally required for a B.Sc. degree. These courses have been developed specifically for the College with the intention of providing a unique, integrated programme of education in science.

PROGRAMMES

In addition to completing the Core Curriculum, students are responsible for satisfying their particular degree requirements by completing a departmental Honours, Specialization, or Major programmme leading to a B.Sc.

The superscript indicates credit value.

30	**Science College Curriculum**
3	SCOL C200^3
9	Chosen from SCOL C250^3, C251^3, C252^3, C253^3
12	SCOL C290^3, C390^3, C490^6*
6	Chosen from SCOL C270^6, C271^6

Additionally, all Science College students are required to attend the College seminars held once weekly. College students will be expected to act as tutors to students in their departments for two hours a week in two of their three years in the University.

**Students may replace SCOL C490^6 with a Departmental Honours Thesis, (6 credits) or the equivalent.*

Note: With the approval of Science College, students may replace 3 credits of the SCOL series C250, C251, C252 and C253 with a departmental science course.

COURSES

SCIENCE COLLEGE C200
Topics for Multidisciplinary Study
(3 credits)

Prerequisite: Membership in the Science College, or permission of the College. The purpose of this course is to introduce students to the multiple levels at which a scientific problem can be understood. They will have the opportunity to study the interplay between scientific disciplines, the factors that distinguish the dominant approaches in each field, and the common qualities of the sciences that mark them as part of the same enterprise. The course will select one or more topics and analyze them from the viewpoint of various disciplines. Representatives of the disciplines will lecture on the different aspects. The unique contribution made by each field to the understanding of a problem will, in this way, become apparent.

SURVEY OF A SCIENTIFIC DISCIPLINE

Students are required to take 9 credits from the category of courses entitled "Survey of a Scientific Discipline". Different disciplines will be surveyed in the courses numbered SCOL C250, C251, C252, C253.

SCIENCE COLLEGE C250
Survey of a Scientific Discipline I (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. This course will survey one or two disciplines, these to include biology, chemistry, geology, computer science, engineering, mathematics, physics, and psychology. The form of the course may vary according to the particular discipline. The goal is to indicate the nature of the problems dealt with by a discipline at present and in the recent past, its characteristic style(s) of analysis, and the directions in which it seems to be headed.

SCIENCE COLLEGE C251
Survey of a Scientific Discipline II
(3 credits)

See description for SCOL C250 above.

SCIENCE COLLEGE C252
Survey of a Scientific Discipline III
(3 credits)

See description for SCOL C250 above.

SCIENCE COLLEGE C253
Survey of a Scientific Discipline IV
(3 credits)

See description for SCOL C250 above.

SCIENCE COLLEGE C270
Historical, Philosophical, and Social Aspects of Science I (6 credits)

Prerequisite: Membership in the Science College, or permission of the College. This course will discuss the intellectual framework of science and the relationships between science and society; the political and philosophical questions inherent in the scientific process. This course is primarily intended for science students and will rely heavily on primary sources. Students will be expected to understand the scientific issues at the level at which they were originally expressed.

SCIENCE COLLEGE C271
Historical, Philosophical and Social Aspects of Science II (6 credits)

Prerequisite: Membership in the Science College or permission of the College. A student who has received credit for SCOL C270 may register for SCOL C271 provided the subject matter is different.

SCIENCE COLLEGE C290
Independent Study I (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. The student will work under the supervision of a member of the Faculty on either a practical laboratory project or a literature study. A formal, written report will be required.

SCIENCE COLLEGE C390
Independent Study II (3 credits)

Prerequisite: Membership in the Science College, or permission of the College. A student who has completed SCOL C290 registers for SCOL C390. Students will be encouraged to work in a field different from that of their SCOL C290 project.

SCIENCE COLLEGE C490
Independent Study III (6 credits)

Prerequisite: Membership in the Science College, or permission of the College. A student who has completed SCOL C390 registers for SCOL C490. Students will be encouraged to work in a field different from that of their SCOL C290 and C390 projects.

31.560 The Simone de Beauvoir Institute and Women's Studies

Principal
M. VERTHUY, *Associate Professor, Etudes françaises*

Associate Principal
S. MCDONOUGH, *Professor, Religion*

Fellows
J. BENNETT, *Head, Interlibrary Loans*
E. EGAN, *Associate Professor, Philosophy*
M. EUVRARD, *Professor, Etudes françaises*
S. FRENCH, *Professor, Philosophy*
J. GELLERT, *Counsellor, Guidance Services*
E. HENRIK, *Assistant Professor, Psychology*
G. HOCHMANN, *Reference Librarian*
E.S. HOECKER-DRYSDALE, *Associate Professor, Sociology*
P. MORLEY, *Professor, English*
M. PETRIE, *Assistant Professor, Teaching of English as a Second Language*
F.E. SHLOSSER, *Assistant Professor, History*
M.L. SQUIRES, *Associate Professor, Exercise Science*
J. VELLACOTT, *Visiting Assistant Professor, Simone de Beauvoir Institute*
K. WATERS, *Associate Professor, English*
J. WOODSWORTH, *Assistant Professor, Etudes françaises*

31.560.1 SIMONE DE BEAUVOIR INSTITUTE

Founded in 1978 to promote the understanding of the historical and contemporary situation of women in society, the Simone de Beauvoir Institute of Concordia University helps women to discover and develop their potential, both by its academic base in Women's Studies and by its co-curricular activities. We are honoured that Simone de Beauvoir has authorized us to use her name and has expressed great interest in being informed of our current and future activities.

All students registered in the Major, Minor or Certificate in Women's Studies are *ipso facto* members of the Institute. Other undergraduate students in the Faculty of Arts and Science are welcome to become members if they undertake to complete SDEB C301, or C302 or C303 plus 6 credits in Women's Studies chosen in consultation with an Institute adviser. All members must complete the Fellows' Seminar SDEB C301, or C302 or C303 (3 credits). Members are expected to contribute to the activities of the Institute.

Students from other Faculties (graduate and undergraduate) are encouraged to become Associate Members. We attach a great deal of importance to bringing together people from diverse disciplines or who have reached different stages in their academic career.

The co-curricular life of the Institute is extremely important, and all members are expected to contribute to our activities. Exciting opportunities are available to organize workshops, colloquia and debates on subjects which interest the members, as well as to collaborate with women's organizations outside the University on research projects and other joint ventures in which we can benefit from the experience of others.

Admission Requirements for the Simone de Beauvoir Institute

Students apply simultaneously to Concordia University and the Simone de Beauvoir Institute by filling out and submitting the Concordia University Application for Admission with the box for "colleges" checked and "Simone de Beauvoir Institute" written in the space provided. The Admissions Office will inform us of your application as soon as they receive it. Further information about the Institute can be obtained by calling us at 879-8521 or at 482-0320, local 455, or by visiting our offices.

Student members of the Institute are required to complete nine credits chosen from among the Simone de Beauvoir Fellows' Seminars and the Women's Studies courses. The choice of these courses must be approved in advance by the Principal or her delegate.

Location

The main centre for the Institute is 2170 Bishop Street on the Sir George Williams Campus. It includes faculty and secretarial offices, a lounge, a reading and a seminar room; there is also a resource centre on the Loyola Campus.

COURSES

SIMONE DE BEAUVOIR C301
Fellows' Seminar I (3 credits)

Prerequisite: Second-year standing and permission of the Institute. The aim of this course is to encourage students to acquaint themselves with current theoretical issues and areas of research related to women. The course will be given by the Fellows, either individually or jointly, according to their special interests and qualifications.

SIMONE DE BEAUVOIR C302
Fellows' Seminar II (3 credits)

Prerequisite: Second-year standing and permission of the Institute. The aim of this course is to encourage students to acquaint themselves with current theoretical issues and areas of research related to women. The course will be given by the Fellows, either individually or jointly, according to their special interests and qualifications.

SIMONE DE BEAUVOIR C303
Fellows' Seminar III (3 credits)

Prerequisite: Second-year standing and permission of the Institute. The aim of this course is to encourage students to acquaint themselves with current theoretical issues and areas of research related to women. The course will be given by the Fellows, either individually or jointly, according to their special interests and qualifications.

31.560.2 WOMEN'S STUDIES

Coordinator
M. VERTHUY, *Associate Professor*

Women's Studies encompass and modify all areas of knowledge. Through the introduction of new perspectives and new research, this field of study helps to correct and complete the traditional scholarly record. It is in essence interdisciplinary and multidisciplinary since the specificity of the condition of women embraces all existing disciplines. It thus questions the concept and structures of knowledge contained within the disciplinary boundaries and contributes to bringing about a reunification of the knowledge and scholarship that has become increasingly fragmented.

The objectives of programmes in Women's Studies may be summarized as follows: to raise fundamental questions about women in society, using a scientific and academic approach; to stimulate interest in and support of research topics relevant to women and social change; to investigate our socio-political and cultural backgrounds and their effect on the status of women; to engage in a continuous evaluation of research into the history, conditions and changing needs of women; to promote the understanding of the historical and contemporary role of women in society; to encourage a new and full recognition of the contribution of women to human achievement; to ensure that women and issues of gender are studied in a non-discriminatory manner as part of the curriculum either in separate distinguishable Women's Studies courses or in courses so modified as to give women's perspective its rightful place; to strengthen and widen women's rights by providing the conditions which allow women to exercise those rights; to ensure the equality of all individuals without distinction of race, sex, age, language or religion and thus transform society.

PROGRAMMES

Students are responsible for satisfying their particular degree requirements.

The superscript indicates credit value.

Students should consult with the Women's Studies Adviser prior to registering for Women's Studies courses.

39 BA Major in Women's Studies

Group I
15 WMNS C290^3, C291^3, C491^3, C492^3; SDEB C301^3 or C302^3 or C303^3

Group II
3 Chosen from WMNS C390^3, C392^3, C393^3

Group III
21 Chosen in consultation with the Women's Studies Adviser from WMNS C390^3, C391^3, C392^3, C393^3; SDEB C301^3, C302^3, C303^3; FMST C329^3; CLAS C254^3; ECON C397^3; EDUC C321^3; ENGL C249^3, C250^3, C251^3, C252^3; FRAN C451^3, C476^3, C477^3; HIST C318^6; PHIL C230^3; POLI C334^6; PSYC C390^6; RELI C333^3, C334^3; SOCI C372^6; THEO C471^3, C472^3

27 BA Minor in Women's Studies

Group I
15 WMNS C290^3, C291^3, C491^3, C492^3; SDEB C301^3 or C302^3 or C303^3

Group II
3 Chosen from WMNS C390^3, C392^3, C393^3

Group III
9 Chosen in consultation with the Women's Studies Adviser from WMNS C390^3, C391^3, C392^3, C393^3; SDEB C301^3, C302^3, C303^3; FMST C329^3; CLAS C254^3; ECON C397^3; EDUC C321^3; ENGL C249^3, C250^3, C251^3, C252^3; FRAN C451^3, C476^3, C477^3; HIST C318^6; PHIL C230^3; POLI C334^6; PSYCH C390^6; RELI C333^3, C334^3; SOCI C372^6; THEO C471^3, C472^3

30 Certificate in Women's Studies

Group I
15 WMNS C290^3, C291^3, C491^3, C492^3; SDEB C301^3 or C302^3 or C303^3

Group II
15 Chosen in consultation with the Women's Studies Adviser from WMNS C390^3, C391^3, C392^3, C393^3; SDEB C301^3, C302^3, C303^3; FMST C329^3; CLAS C254^3; ECON C397^3; EDUC C321^3; ENGL C249^3, C250^3, C251^3, C252^3; FRAN C451^3, C476^3, C477^3; HIST C318^6; PHIL C230^3; POLI C334^6; PSYC C390^6; RELI C333^3, C334^3; SOCI C372^6; THEO C471^3, C472^3

Students may transfer into the Certificate programme up to twelve credits earned in an incomplete degree or certificate programme or as an Independent or Special student, provided they are students in good standing. The credits that may be so transferred are determined by the University at the point of entry into the programme.

COURSES

WOMEN'S STUDIES C290
Woman's Identity and Image: Historic Attitudes (3 credits)

Women's Studies, because of its emerging yet rapidly developing nature, both affects and transcends pre-existing disciplines. On the one hand, this course will show, in a historical context, how by the use of new developments in various disciplines, fresh

light can be shed on traditional assumptions. On the other, it will study not only the "mirror image" of women as found in certain male writings but also the images women have projected of themselves and the reasons underlying those projections. Topics may include: the witch question; the place of women in ecclesiastic reforms; the "blue stockings"; women and contraception; women and public life; women and education; women and socialism; theories of the family; the economic status of women; elitist feminism.

NOTE: Students who have received credit for INTE C290 may not take this course for credits.

WOMEN'S STUDIES C291
Woman's Identity and Image: Recent Approaches (3 credits)

Again, by using new tools, culled from various disciplines, this course will look at the recent history of women; in particular, the diverse ways in which they have struggled to attain autonomy and the obstacles confronting them. Particular attention will be paid at the end of the course to questions involving women and language. Topics may include: women and revolution; women and work; theories of caste and class; changes in the status of women; women and personhood; women and their bodies; women and language; women and the national question.

NOTE: Students who have received credit for INTE C291 may not take this course for credits.

WOMEN'S STUDIES C390
Selected Topics in Women's Studies I (3 credits)

This course focuses its attention on one or more aspects of the Women's Studies programme. The theme and methodology chosen will depend upon the background and interests of the instructor. Students are advised to consult with the Women's Studies coordinator before registering, in order to be sure of the special subject of the course in any one session. Lectures: 3 hours per week.

NOTE: Students who have received credit for INTE C390 may not take this course for credits.

WOMEN'S STUDIES C391
Selected Topics in Women's Studies II (3 credits)

Students who have received credit for WMNS C390 may register for WMNS C391 provided the subject matter is different.

WOMEN'S STUDIES C392
Social Change: Women in Modern Society I (3 credits)

Prerequisite: WMNS C290 and C291. An interdisciplinary course designed to survey some of the major theories on women's role in society. The specific discipline emphasized will vary from year to year depending upon the background of the instructor. Lectures and/or seminars: 3 hours per week for one term.

NOTE: Students who have received credit for INTE C392 may not take this course for credits.

WOMEN'S STUDIES C393
Social Change: Women in Modern Society II (3 credits)

Prerequisite: WMNS C290 and C291. An interdisciplinary course designed to survey some of the major theories on women's role in society. The specific discipline emphasized will vary from year to year depending upon the background of the instructor. Lectures and/or seminars: 3 hours per week second term.

NOTE: Students who have received credit for INTE C393 may not take this course for credits.

WOMEN'S STUDIES C491
Seminar in Women's Studies I (3 credits)

Prerequisite: Third-year standing. This is an interdisciplinary seminar on selected themes related to women in society, utilizing the perspectives of a number of academic disciplines. The emphasis is on independent study. Lectures: 3 hours per week.

NOTE: Students who have received credit for INTE C491 may not take this course for credits.

WOMEN'S STUDIES C492
Seminar in Women's Studies II (3 credits)

Prerequisite: Permission of the instructor. This is a continuation of the interdisciplinary seminar on selected topics related to women in society. Lectures: 3 hours per week.

NOTE: Students who have received credit for INTE C492 may not take this course for credits.

The following departmental courses are also offered as components of the programmes in Women's Studies.

Cinema and Photography
FILM STUDIES C329
Women and Film (3 credits)

Classics
CLASSICS C254
Women in Classical Antiquity (6 credits)

Economics
ECONOMICS C397
Economics of Discrimination (3 credits)

Education
EDUCATION C321
Sex-Role Socialization in the School (3 credits)

English
ENGLISH C249
Women in Literature I (3 credits)

ENGLISH C250
Women in Literature II (3 credits)

ENGLISH C251
Selected Topics in Literature Written by Women I (3 credits)

ENGLISH C252
Selected Topics in Literature Written by Women II (3 credits)

Français
FRANCAIS C451
La littérature québécoise au féminin (3 crédits)

FRANCAIS C476
La littérature française au féminin I (3 crédits)

FRANCAIS C477
La littérature française au féminin II (3 crédits)

History
HISTORY C318
Women in Western History (6 credits)

Philosophy
PHILOSOPHY C230
Human Identity (3 credits)

Political Science
POLITICAL SCIENCE C334
Women and the Law (6 credits)

Psychology
PSYCHOLOGY C390
Sexual Differentiation (6 credits)

Religion
RELIGION C333
Women and Religion I (3 credits)

RELIGION C334
Women and Religion II (3 credits)

Sociology
SOCIOLOGY C372
Sociology of Sex Roles (6 credits)

Theological Studies
THEOLOGICAL STUDIES C471
Women and Christianity (3 credits)

THEOLOGICAL STUDIES C472
The Feminine and the Female in Contemporary Christian Theology (3 credits)

NOTE: Students should consult the appropriate departments concerning possible prerequisites for the above courses.

Language/Langue

Les règlements actuels permettent à tout/e étudiant/e d'écrire ses devoirs ou examens en anglais ou en français dans tous les cours offerts, à l'exception des cours de langue. La langue d'enseignement sera normalement l'anglais.

Non-francophone students may equally submit assignments in English in Français C451, C476, and C477, as long as they are taking the course for credit in Women's Studies or as an elective, and not as part of a programme of the Département d'Études françaises.

INFORMATION
CONC
PLANT

61 Faculty of Commerce and Administration

61.10 COMMERCE AND ADMINISTRATION

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61.20.1 Bachelor Degree Programmes
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61.30 GENERAL INFORMATION

61.40 ACCOUNTANCY

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61.150 SPECIAL CERTIFICATE PROGRAMMES

61.160 CONCORDIA CENTRE FOR MANAGEMENT STUDIES

61.10 Commerce & Administration

Dean
PIERRE SIMON

Associate Deans
ROBERT CURNEW *(Academic and Administration)*
ROLAND WILLS *(Academic Programmes and Student Affairs)*

61.20 Admission Requirements

General admission requirements are listed in §13.

Specific requirements for admission to the Faculty of Commerce & Administration for students in CEGEP are Mathematics 103, 105, 203, or equivalent. Arrangements will be made in the first-year programme to give special instruction to those students who lack adequate mathematical preparation.

Individuals accepted under the provisions of the **extended credit programme** will be required to complete the following additional 30 credits within their first year:

MATH C208	3 credits
MATH C209	3 credits
MATH C211	3 credits
ENGL C211 or an appropriate alternative	6 credits
*electives	15 credits
TOTAL	30 credits

**These electives must be selected from outside the offerings of the Faculty of Commerce and Administration, but not from disciplines represented in its degree programmes.*

61.20.1 BACHELOR DEGREE PROGRAMMES

The Faculty of Commerce and Administration offers two distinct Bachelor programmes. The *Bachelor of Commerce (BComm)* degree is the more structured "professional" type programme in which the student will select a Major from those offered in Commerce or Economics. The *Bachelor of Administration (BAdmin)* degree is a less structured "liberal" type programme which permits the student to pursue interests outside the Faculty, and offers the possibility of complementing a fundamental grounding in Administration with minor concentrations in an area of interest. Degree requirements listed below apply to all students entering the programme on or after June 1, 1976.

61.20.2 CORE REQUIREMENTS

The required 51-credit core is identical for both programmes and comprises the following courses:

1st Year
ACCOUNTANCY C213
QUANTITATIVE METHODS C243
ECONOMICS C201
MANAGEMENT C213
MARKETING C213
ACCOUNTANCY C218
QUANTITATIVE METHODS C244
ECONOMICS C203
MANAGEMENT C266
FINANCE C314

2nd Year
MANAGEMENT C475
QUANTITATIVE METHODS C313
MARKETING C350
MANAGEMENT C340
QUANTITATIVE METHODS C314
FINANCE C315

3rd Year
MANAGEMENT C460

NOTE: Students are responsible for following the correct sequence of courses required for the completion of a particular programme.

61.20.3 BACHELOR OF COMMERCE PROGRAMME

This programme provides the student with an education for business life. It is our intention to graduate students liberally educated about business. To accomplish this, we have designed a multi-disciplinary and interdisciplinary curriculum which is intellectually challenging.

The first year of the programme is intended to provide an informative accumulation of operational attitudes, skills, and tools which form the base for the core concentration.

The core concentration in the second year attempts to give broad experience in all phases of business in a coordinated, analytical, and reflective period of study. All the resources of the student's intellectual ability are combined with his interdisciplinary studies to analyze, formulate, judge, and solve challenging business situations.

The last year of the programme is intended to provide students with an opportunity to immerse themselves in an area of specialized study. In addition, students participate in a course which is designed to test their ability to integrate their knowledge and to view the study of business as a whole.

In view of this design, all students must follow the sequence of the courses on the

basis of an academic year as outlined in the curriculum. No student will be permitted to register for second- or third-year courses without having completed the courses of the first academic year.

Exceptions may be authorized in writing for valid reasons by the Dean or Academic Adviser.

Degree Requirements*

To obtain the degree of Bachelor of Commerce, all students are required to follow a Major Programme. A Major consists of at least 24 credits in the chosen discipline in addition to the required 51-credit core. The remaining credits are unrestricted electives and may be selected to form a Minor programme if applicable. Major and Minor programmes are available in the following areas:

NOTE: There are no double majors in the Faculty of Commerce and Administration.

**The Faculty plans to introduce an overall minimum performance level requirement in the near future.*

CONCORDIA FACULTY OF COMMERCE AND ADMINISTRATION

*Bachelor of Commerce	Major	Minor	Certificate
Accountancy	X	X	
Business Studies		X[1]	X[1]
**Economics	X		
Finance	X	X	
International Business		X	
Management			
Administrative Management	X	X	
Human Resource Management	X		
Personnel Management		X	
Entrepreneurship & Small Business Management		X	
Managerial Law		X	
Industrial Relations	X		
Marketing	X	X	
Marketing Research		X[1]	X[1]
Quantitative Methods	X	X	
Data Processing	X		
Business Statistics		X	
Management Operations Research		X	
Business Systems		X	
Production Systems		X	
Operations Research		X[1]	X[1]

Students will indicate their preferred field of concentration at the time of application for entry. It should be noted, however, that since the programme of study of the first year is common to all programmes, students may change to another programme provided, of course, that the capacity of the programme permits it.

[1]*This programme is not open to students registered in a programme leading to the degrees of Bachelor of Commerce or Bachelor of Administration.*

Students of this Faculty who elect to major in any of the disciplines of the Faculty or Economics will be enrolled in a Bachelor of Commerce degree programme.

*BACHELOR OF ADMINISTRATION	Specialization
General Administration (60 credits)	X

30 credits must be selected from courses outside the Faculty of Commerce and Administration, but at least 15 credits must be beyond the introductory level.

**Both degrees have a common core of 51 credits out of a total of 90 credits.*

***Students may follow an Honours in Economics, but they must obtain approval from the Arts and Science Faculty (Department of Economics).*

61.20.4 BACHELOR OF ADMINISTRATION PROGRAMME

The Bachelor of Administration Programme is designed to develop problem-solvers and decision-makers in all walks of life.

A successful graduate is able to develop objectives and strategies, organize people and resources, direct an organization's activities and control these activities, and appraise objectives and strategies in the light of results.

The programme has been made flexible enough to allow a student to develop according to his own needs.

This programme provides the student with a fundamental grounding in administration and offers the opportunity to pursue varied interests among courses offered by the University.

Degree Requirements*

To obtain the degree of Bachelor of Administration, students are required to complete the 51-credit core and 9 elected credits from Commerce and/or Economics to complete the 60 credits required for Specialization. The remaining 30 credits must be selected from courses outside the Faculty of Commerce and Administration, but at least half of these must be beyond the introductory level.

**The Faculty plans to introduce an overall*

minimum performance level requirement in the near future.

61.30 General Information

Old Credit Programme (Transition)

Students who have enrolled in a programme at this Faculty prior to June 1, 1976 will complete the programme as shown in the University Announcement 1975/1976. For substitution of courses not offered in the new programme, students will consult with representatives of the respective departments.

Failures

Students are cautioned that a failure in a first-term course will prohibit them from proceeding to a second-term course for which the first is a prerequisite. Students who find themselves in this position must drop the second-term course and register in a section of the failed course, if available.

There will be a course-change period at the beginning of the second term, at which time students failing in the above category must make arrangements with the Office of the Registrar for the necessary course changes.

NOTE: THERE ARE NO SUPPLEMENTAL EXAMINATIONS IN THE FACULTY OF COMMERCE AND ADMINISTRATION.

French Language

The business community, as well as governments, now express a preference for university graduates who are bilingual. We, therefore, advise all students to take advantage of the opportunities available during their years at this University to ensure that they are bilingual when they present themselves for employment upon graduation.

Courses/Non Commerce Students

Students not registered in the Faculty of Commerce & Administration, who wish to undertake any courses offered by the Faculty, but do not have the stated prerequisites, must obtain permission in writing from the Student Request Committee, Faculty of Commerce *prior to registration.*

61.40 Accountancy

Professor and Chairman of the Department
J. DAVID BLAZOUSKE

Professors
L.M. BESSNER
S.D. MAGEN
H. MANN
W.R. SCOTT

Associate Professors
G.R. CURNEW
H.J. DAUDERIS
D.F. MACDONALD
N.B. MACINTOSH
E.B. MARKLAND
H.B. RIPSTEIN
P.F. WADE

Assistant Professors
C.K. DRAIMIN
C.H. LIEBMAN
G. LOWENFELD
F.L. SBROCCHI

Lecturers
B. CONHEADY
V. FORTUNATO
H.S. GREENSPON
R. KAPOOR
R. LANN
N. REINBLATT
L.A. ROBERTON
A. VASIL

61.40.1 PROGRAMMES

30	**Major in Accountancy**
3	ACCO C323
3	ACCO C325
3	ACCO C326
3	ACCO C403
3	ACCO C429
3	ACCO C441
12	additional credits offered by the Department

12	**Minor in Accountancy**
3	ACCO C323
3	ACCO C326
6	additional credits offered by the Department

61.40.2 COURSE DESCRIPTIONS

ACCOUNTANCY C213
Financial I (3 credits)

This course examines the theory and practice involved in recording and reporting an organization's financial information for interested parties. It includes the preparation and analysis of financial statements. This course is required for all Commerce and Administration students and is recommended for non-Commerce and Administration students, particularly those considering graduate studies in business administration. *NOTE A/See §200.2*

ACCOUNTANCY C217
Financial and Managerial (3 credits)

Prerequisite: ACCO C213. This course is designed to develop, through verbal analysis of business cases, an understanding and skill in the preparation of statements for financial accounting purposes, taking into account the needs of business management. The student must be able to analyze these statements and comment critically thereon. *NOTE A/See §200.2*

NOTE: Major and Honours students in Accountancy may not take this course for credits.

ACCOUNTANCY C218
Managerial I (3 credits)

Prerequisite: ACCO C213. This course is an introduction to the development of accounting information for purposes of control, decision making, and the more efficient operation of the enterprise. *NOTE A/See §200.2*

ACCOUNTANCY C220
An Accounting Approach to Management (3 credits)

This course is designed to cover certain major aspects of management related to the accounting process. These include: business organization; accounting concepts; financial statement analysis; management uses of accounting information; and the effect of taxation on business decisions. *NOTE A/See §200.2*

NOTE: Commerce and Administration students may not take this course for credits.

ACCOUNTANCY C221
Accounting and Management (3 credits)

Prerequisite: ACCO C220. This course is sequential to ACCO C220, and examines in greater depth the areas covered in that course. *NOTE A/See §200.2*

NOTE: Commerce and Administration students may not take this course for credits.

ACCOUNTANCY C323
Intermediate I (3 credits)

Prerequisite: ACCO C213. This course extends, at a senior level, the material covered in earlier courses, integrating the previous

work with advanced theory and application. Intensive study is made of the theory and practice of external reporting by commercial and other entities. Concepts and procedures involved in the valuation of resources are studied, as are the concepts of income determination. *NOTE A/See §200.2*

ACCOUNTANCY C325
Advanced (3 credits)
Prerequisite: ACCO C326, previously or concurrently. This advanced course is concerned primarily with corporate combinations. A study is also made of other advanced accounting areas. *NOTE A/See §200.2*

ACCOUNTANCY C326
Intermediate II (3 credits)
Prerequisite: ACCO C323. This course continues the intensive study of Intermediate I, with particular emphasis on obligations, funds statements, and financial statement analysis.

ACCOUNTANCY C403
Cost and Management Accounting (3 credits)
Prerequisite: ACCO C218 and C323. This course, based primarily on lectures and problem-solving, is directed to the needs of students who contemplate careers in professional accounting as members of recognized accounting bodies. A detailed examination is made of the various techniques, systems, and procedures applicable to the managerial use of accounting information for decision-making, profit-planning, and control. *NOTE A/See §200.2*

ACCOUNTANCY C407
Accounting Practice and Policy (3 credits)
Prerequisite: ACCO C323. Corequisite: ACCO C326, C410, C429, and C432. Areas previously or concurrently covered in the field of corporate financial reporting are extended, and current accounting literature and pronouncements of professional accounting bodies are examined. Extensive use is made of the case method of instruction. *NOTE A/See §200.2*

ACCOUNTANCY C410
Specialized (3 credits)
Prerequisite: ACCO C326. In this course, an examination is made of some of the specialized aspects of financial accounting. The course focuses on the application of accounting principles and theory to "unusual" business transactions and entities.

ACCOUNTANCY C414
Information Systems and Control (3 credits)
Prerequisite: ACCO C218. This course includes information systems theory, control theory and practice, responsibility accounting, and a survey of selected management science techniques. Through case analysis and discussions, the interrelationships between information and control systems, managerial style, and human behaviour are established. *NOTE A/See §200.2*
NOTE: Introductory-level knowledge of computer systems is recommended.

ACCOUNTANCY C422
Cost and Management Accounting (Advanced) (3 credits)
Prerequisite: ACCO C403. This course, through cases and problems, continues at an advanced level the study of modern cost and managerial accounting systems, and emphasizes the contemporary problems facing accountants, and their potential solutions by the use of sophisticated techniques. *NOTE A/See §200.2*

ACCOUNTANCY C429
Analytical Auditing (3 credits)
Prerequisite: ACCO C326. This course introduces auditing theory and its application by external and internal auditors in fulfilling their respective objectives and responsibilities. The focus is on the audit of transactions or procedures used by organizations. An analytical approach is used to discuss different accounting systems and to evaluate systems of internal control. The development and use of detailed audit procedures and audit programmes is also covered. Cases and problem solving form the basis of student involvement in this course. *NOTE A/See §200.2*

ACCOUNTANCY C432
Financial Auditing (3 credits)
Prerequisite: ACCO C429. This course emphasizes the role of the public accountant in expressing an opinion on the financial statements of an organization. The use of audit standards, procedures, and internal control is related to the expression of an auditor's opinion. Cases and problems solving form the basis of student involvement in this course. *NOTE A/See §200.2*

ACCOUNTANCY C433
Auditing and Investigation (3 credits)
Prerequisite: ACCO C429. This course deals with questions related to professional accounting practices and also covers different types of management services that auditors are frequently requested to undertake. *NOTE A/See §200.2*

ACCOUNTANCY C441
Taxation I (3 credits)
Prerequisite: ACCO C213. This course examines the Canadian taxation structure. Emphasis is given to the income taxes levied on individuals, and includes the taxation of capital gains, employment, business, and investment income. *NOTE A/See §200.2*

ACCOUNTANCY C442
Taxation II (3 credits)
Prerequisite: ACCO C441. This course extends the coverage of ACCO C441 with a detailed examination of taxes on corporate incomes, and of corporate distributions. Sales taxes, succession duties, and other tax areas are also examined. *NOTE A/See §200.2*

ACCOUNTANCY C451
Computer Auditing (3 credits)
Prerequisite: COMP211 or equivalent, and ACCO C429. This course explores the impact of large scale computer use on the auditor and his examination of a company's records and systems of internal control. The emphasis is on helping the auditor understand when a computer can be used to assist him and how to follow through with its use. Topics covered include the different controls and techniques required in a computer system, the audit trail, approaches to computer auditing and computer application for auditing, computer and software security, and consideration of the various computerized audit packages available. *NOTE A/See §200.2*

ACCOUNTANCY C461
Accounting Theory I (3 credits)

Prerequisite: ACCO C325. This course examines the framework underlying current accounting thinking and procedures. A study is made of the development and the influence of professional accounting organizations and regulatory bodies on accounting theory. Controversial areas are emphasized. *NOTE A/See §200.2*

ACCOUNTANCY C462
Accounting Theory II (3 credits)

Prerequisite: ACCO C461. This course extends the coverage of ACCO C461. Particular emphasis is placed on developments in the current literature and in problem areas facing the accounting profession.

ACCOUNTANCY C468
(Also listed under International Business)
International Accounting (3 credits)

Prerequisite: MARK C462 or International Business C362, ACCO C213 and C218, FINA C314 and C315. (Students who have taken International Business C468 may not take this course for credit.)

This course examines accounting practices employed by different countries; accounting and financial control of international operations, and various consolidation procedures and their effect on the interpretation of financial statements are discussed.

ACCOUNTANCY C470
Special Topics in Accounting (3 credits)

Prerequisite: Departmental approval. Intended to complement and supplement accounting courses taken previously or concurrently at the senior level, this course emphasizes accounting literature and modern thought. Students are encouraged to work independently on research topics of interest to them. Enrolment is restricted and is subject to departmental approval. *NOTE A/See §200.2*

ACCOUNTANCY C471
Accounting Seminar (3 credits)

Prerequisite: ACCO C470. This course examines in greater depth areas of individual interest. Enrolment is restricted and is subject to departmental approval. Students repeating ACCO C471 register for credits under ACCO C472. *NOTE A/See §200.2*

61.50 Administration

ADMINISTRATION C201
Introduction to Administration
(Administered by the Finance Department)
(3 credits)

This course is intended to develop a basic understanding of the role of administration in our society. The course includes a survey of different forms of organizations, their social and legal responsibilities, and how they function to achieve their goals.

NOTE: Commerce and Administration students may not take this course for credit.

ADMINISTRATION C202
Perspective on Business
(Administered by the Finance Department)
(3 credits)

This course is designed to review the historical development of business (in Canada in particular) and to examine the relationships between the firm (management) and the owners, the employees, the customers, the government, and the community. Further, it studies some of the problems facing Canadian business today: the dehumanizing aspect, pollution problems, large vs. small firms, foreign ownership, competition, etc.

NOTE: Commerce and Administration students may not take this course for credits.

61.60 Finance

Associate Professor and Chairman of the Department
C.S. PATTERSON

Professor
C.C. POTTER

Associate Professors
L. BOYLE
E. DOUGLAS
B. ENGLISH
L. KRYZANOWSKI
K. RIENER

Assistant Professors
J. DOUKAS
A. JALILVAND

Lecturers
Q.-T. DO
S. HERBERT

Visiting Professor
J. SEVERIENS

Executive-In-Residence
P. SEVIGNY

61.60.1 PROGRAMMES

24	**Major in Finance**
3	FINA C440
3	FINA C441
18	additional credits offered by the Department

12	**Minor in Finance**
12	400-level credits offered by the Department

61.60.2 COURSE DESCRIPTIONS

FINANCE C314
Introduction to Finance I (3 credits)
Prerequisite: ECON C201 or equivalent, ACCO C213, and ACCO C218 previously or concurrently. A course dealing with financial standards and forecasting, the theory of interest, capital expenditure decisions, current asset management, and the behaviour of money and capital markets. *NOTE A/See §200.2*
NOTE: Students who have previously taken FINA C215 may not take this course for credit.

FINANCE C315
Introduction to Finance II (3 credits)
Prerequisite: FINA C314 and ECON C203, or equivalent. A course dealing with short, intermediate, and long-term financing instruments, financial structure, and valuation, cost of capital and dividend policy. *NOTE A/See §200.2*
NOTE: Students who have taken FINA C215 should consult the Department concerning permission to take this course.

FINANCE C417
Capital Budgeting Theory (3 credits)
Prerequisite: FINA C315. An examination of the criteria for efficient investments and optimum financial budgeting. *NOTE A/See §200.2*

FINANCE C418
Cost Benefit Analysis (3 credits)
Prerequisite: FINA C315. Private and public resource investment, planning programming budgeting systems and associated problems. *NOTE A/See §200.2*

FINANCE C424
Personal Finance Management (3 credits)
Prerequisite: FINA C314 and C315, and third year standing in the Faculty of Commerce. This course is designed to assist the student in making rational decisions when consulting in personal financial activities. Topics to be covered include: personal budgeting, spending pattern analysis, the proper use of credit, housing, investment (both traditional and modern), tax and retirement planning. Case studies will be utilized when possible.

FINANCE C430
Financial Management I (3 credits)
Prerequisite: FINA C315. A study of the role and responsibility of the senior financial officer in the achievement of current control through operational finance. A variety of case studies are used to encourage the students to develop a critical approach to the subject. *NOTE A/See §200.2*

FINANCE C431
Financial Management II (3 credits)
Prerequisite: FINA C430. This course is a continuation of FINA C430, using the case-method approach to cover such topics as long-term financing, investment decisions, mergers, and acquisitions. *NOTE A/See §200.2*

FINANCE C440
Finance Theory I (3 credits)
Prerequisite: FINA C315. This course discusses the role of research and theory in finance, and the theories of wealth allocation, interest, capital markets, and asset pricing. The discussion of these topics includes the effects of such influences as risk and inflation. *NOTE A/See §200.2*

FINANCE C441
Finance Theory II (3 credits)
Prerequisite: FINA C440. This course will be a continuation of FINA C440 covering such topics as: dividends and the value of the corporation, cost of capital, game theory and liquidity. *NOTE A/See §200.2*

FINANCE C452
Investment Analysis (3 credits)
Prerequisite: FINA C315. The examination of the workings of security markets and analytical techniques for the valuation of securities. *NOTE A/See §200.2*

FINANCE C453
Investment Management (3 credits)
Prerequisite: FINA C452. A study of diversification and portfolio management techniques. *NOTE A/See §200.2*

FINANCE C455
Seminar in Finance (3 credits)
Prerequisite: FINA C315. This course is intended primarily for Majors students and provides an opportunity for more intensive study in one or more specific topics of finance. The topic will vary according to the special interests of the professor and the students. Students repeating FINA C455 register for credits under Finance C456. *NOTE A/See §200.2*

FINANCE C460
Financial Intermediaries (National)
(3 credits)
Prerequisite: FINA C315. Principles of money and credit in their application to the operations of the central bank, chartered banks, and the financial system and markets generally. *NOTE A/See §200.2*

FINANCE C461
Financial Intermediaries (Quebec)
(3 credits)
Prerequisite: FINA C315. A study of the operation of financial institutions in the Province of Quebec. *NOTE A/See §200.2*

FINANCE C467
International Managerial Finance and Investment
(Also listed under International Business)
(3 credits)
Prerequisite: MARK C462 or International Business C362, FINA C314 and C315. (Students who have taken International Business C467 may not take this course for credit.) International transactions and financial flows. Business, political and foreign exchange risks. Insurance for foreign operations. Exchange rate protection. Public policy and institutions influencing international business. Various methods of financing used in world trade. Evaluation of foreign investment projects. Working capital management in the international context. Financial control of international operations.

FINANCE C491
Real Estate Investment and Finance
(3 credits)
Prerequisite: FINA C315. This course examines the nature of investments in real property and of real estate financing. The topics covered include factors which affect valuation, risk, and income of real estate investments and methods of financing real estate transactions; the structure of the mortgage market, the role of financial institutions, and the influence of the government on the real estate market.

61.70 International Business

Programme Co-ordinator
K.C. DHAWAN

61.70.1 PROGRAMMES

12	**Minor in International Business**
3	MARK C462
9	Additional credits among MARK C465, MANA C466, FINA C467, ACCO C468

61.70.2 COURSE DESCRIPTIONS

(The following five courses are also listed under each respective department)

MARKETING C462
INTERNATIONAL BUSINESS
Environment of World Business (3 credits)

Prerequisite: Second-year standing in Commerce. (Students who have taken International Business C362 may not take this course for credit.)

This is a foundation course in international business; the objective is to present information which will expose the student to cultural, social, political, economic, legal, and financial environments in which the Canadian businessman manages his operations abroad. Each student will be encouraged to develop his own philosophy toward international business activities by developing research and analytical skills in analyzing current and long-term problems perceived in different economic systems and environments. Specific topics include empirical dimensions of world economy, economic development, international trade and investment patterns, regional economic co-operation, area studies, Canadian nationalism, and foreign investment in Canada, etc.

MARKETING C465
INTERNATIONAL BUSINESS
International Marketing Management (3 credits)

Prerequisite: MARK C462 or International Business C362, MARK C213 and C350. (Students who have taken International Business C465 may not take this course for credit.)

This course studies the management approach to international marketing, with emphasis on key variables that are controllable by the international marketing manager. Attention is focused on market measurement, product policy, channels, pricing, and promotion, with special emphasis on the development and control of multinational marketing strategies and programmes.

MANAGEMENT C466
INTERNATIONAL BUSINESS
Management of Multinational Corporations (3 credits)

Prerequisite: MARK C462 or International Business C362, MANA C213, C266, C340. (Students who have taken International Business C466 may not take this course for credit.)

This is a course that demonstrates the analytical tools of operations and organization theory applicable within a multinational company. The course is designed to give students a grasp of the problems of strategy formulation and organization, and inculcates a general knowledge of the major parameters in which an international manager operates. Focus is on the Canadian, as well as other international companies based in U.S.A., Europe, Japan, etc.

FINANCE C467
INTERNATIONAL BUSINESS
International Managerial Finance and Investment (3 credits)

Prerequisite: MARK C462 or International Business C362, FINA C314 and C315. (Students who have taken International Business C467 may not take this course for credit.)

International transactions and financial flows. Business, political, and foreign exchange risks. Insurance for foreign operations. Exchange-rate protection. Public policy and institutions influencing international business. Various methods of financing used in world trade. Evaluation of foreign investment projects. Working capital management in the international context. Financial control of international operations.

ACCOUNTANCY C468
INTERNATIONAL BUSINESS
International Accounting (3 credits)

Prerequisite: MARK C462 or International Business C362, ACCO C213 and C218, FINA C314 and C315. (Students who have taken International Business C468 may not take this course for credit.)

This course examines accounting practices employed by different countries; accounting and financial control of international operations, and various consolidation procedures and their effect on the interpretation of financial statements are discussed.

61.80 Management

Associate Professor and Acting Chairman of the Department
S. APPELBAUM

Professor
G. BRINK
T. HERBERT
J. KELLY

Associate Professors
V. BABA
R. CRAWFORD
M. FRANKLIN
J. GOODWIN
H. GRAM
M. JAMAL
G. JOHNS
T. KUBICEK
C. LIPSIG-MUMME
P. PITSILADIS
G.S. RAJAN
J. SMOLA

Assistant Professors
K. ARGHEYD
J.P. BRUNET
L. DYER
R. OPPENHEIMER
B. PRINCE

Lecturers
R. DAINOW
S. FINKLESTEIN

Sessional Lecturers
D. FRANKLIN
J. SHAMSIE
M. SHARP

61.80.1 PROGRAMMES

24 Major in Administrative Management

3 MANA C345
3 MANA C369
3 MANA C341
3 MANA C461
3 MANA C462
3 MANA C464
3 MANA C476
3 one of MANA C402, C420, C442, C474

12 Minor in Administrative Management

3 MANA C369
3 MANA C442
3 MANA C461
3 MANA from the programme of Major in Administrative Management

12 Minor in Entrepreneurship and Small Business Management

3 MANA C451
3 MANA C452
3 MANA C454
3 MARK C352 or C485

24 Major in Human Resource Management

3 MANA C341
3 MANA C342
3 MANA C420
3 MANA C462
3 MANA C463
3 MANA C464
6 two of MANA C369, C441, C479

12 Minor in Personnel Management

3 MANA C341
3 MANA C462
3 MANA C464
3 MANA from programme of Major in Human Resource Management

12 Minor in Managerial Law

3 MANA C476
3 MANA C477
3 MANA C478
3 MANA C479

24 Major in Industrial Relations

3 MANA C462
3 MANA C464
3 MANA C465
3 MANA C479
3 ECON C381 or C481
3 MANA C468
3 one of MANA C469, C470, C471, C472
3 one of HIST C310; SOCI C280, C342, C343

NOTE: In order to mtake it possible to ake the programme in twenty-four (24) credits, one or more Sociology courses will be subdivided next year.

MANAGEMENT C211
Business Law (6 credits)

A general survey of the law obtaining in the Province of Quebec, with special emphasis on the aspects thereof relating to business and commerce. It includes a basic outline of the law of Domicile, Marriage, Persons, Property, Ownership and its modifications, Successions, Gifts and Wills, Testamentary Executors, Contracts, Quasi-Contracts, Offences and Quasi-Offences, Privileges, Hypothecs and Prescription, and a more detailed study of the Contract of Sale, Lease and Hire of Things and of Work, Mandate, Loan, Deposit, Partnership, Suretyship, Pledge, Insurance, and an outline of the basic law applying to Negotiable Instruments. Corporations, Carriers, Bankruptcy and Winding Up, and Copywrights, Patents, and Trade Marks. *NOTE A/See §200.2*

NOTE: Commerce and Administration students may not take this course for credits.

MANAGEMENT C213
Foundations of behaviour (3 credits)

The purpose of this course is to introduce the student to those behavioural concepts relevant to the study of organizational problems. Topics include preception, attitudes, personality, group behaviour, roles, and culture as they relate to organizational processes.

NOTE: Students who have credit for PSYCH C200 or equivalent may not take MANA C213 for credit.

MANAGEMENT C266
Management: Theory & Practice (3 credits)

The purpose of this course is to introduce the student to management theory and practice. Management will be viewed as a discipline and as a process (planning, organizing, and evaluating). The evolution and scope of management will be considered, with illustrations drawn from Canadian experiences.

MANAGEMENT C340
Organizational Behaviour (3 credits)

Prerequisite: MANA C213; C266. This course is designed to provide the student with an opportunity to study behaviour within formal organizations. Through theoretical and experiential approaches, the focus of instruction progressively moves through the different levels of analysis, particularly motivation, leadership, and group behaviour. The objective of the course is to improve the student's perceptual, analytical, and problem-solving skills in the diagnosis and innovative resolution of behavioural problems in organizations.

MANAGEMENT C341
Organization Theory (3 credits)

Prerequisite: MANA C340. The function, structure, and processes of organizations will provide the focus for study. Inter-relationships among the psychosocial, technological, and formal properties of organizations will be examined. Emphasis will be placed on the diagnosis, analysis of organizational problems, and optimal-design alternatives for improving organizational performance and effectiveness will be explored. The objective is to provide the student with a thorough understanding of the nature of contemporary complex organizations.

MANAGEMENT C342
Organizational Change (3 credits)

Prerequisite: MANA C340. An administrative perspective of the behavioural and rational empirical strategies for effecting change in organizations. Emphasis will be placed on an eclectic approach to the planning and implementation of change. Models and methods of change will be reviewed, and opportunities for the development of change-agent skills will be provided.

MANAGEMENT C345
Production Management I (3 credits)

Prerequisite: QUAN C314. It is the production function of the enterprise that gives us the products or services that we sell. In this course, we attempt to help management guide and control this area. Topics include government programmes and incentives, health and safety regulations, production-incentive systems, management-information systems, and plant location.

MANAGEMENT C346
Production Management II (3 credits)

Prerequisite: MANA C345. This course is a continuation of Production Management I and is designed to supplement the knowledge of those students choosing to Minor in Production Management. One or more of the following topics will be dealt with in depth: work measurement and development of standard data for incentive systems; production planning, scheduling, and control; research and development; plant layout and materials handling.

NOTE: Not offered in 1983-84.

MANAGEMENT C368
Social Aspects of Enterprise (3 credits)

Prerequisite: Second-year standing in any faculty. The purpose of this course is to facilitate understanding of the impact of social, economic, political, and ethical environments on the process of managerial decision-making. Consideration is given to the conceptual foundations of business, including the business corporation, its function, and the legitimacy of its power structure. *NOTE A/See §200.2*

NOTE: Not offered in 1983-84.

MANAGEMENT C369
Canadian Business and its Environment (3 credits)

Prerequisite: Second-year standing in Commerce. The purpose of this course is to examine the functioning of Canadian business and its relationships with its public, including stockholders, consumers, employees, labour, community, and government. Major contemporary issues, such as the impact of technology on people and the physical environment, are examined. *NOTE A/See §200.2*

MANAGEMENT C402
Supervisory Practice (3 credits)

Prerequisite: MANA C340. A seminar focusing on the emerging understanding of leadership and supervisory techniques in task-oriented organizations. Contemporary concepts and research on leadership and supervision will be examined. The seminar will analyze the multiple bases for influence and the situational or contingency aspects of leadership. A balance among the conceptual, diagnostic, and experiential approaches to the development of supervisory capability will be emphasized.

MANAGEMENT C409
Principles of Insurance (3 credits)
This course examines the growth of insurance companies in Canada and their effect upon the economy. In addition, the basic fundamentals of insurance are covered, including such topics as life insurance, income replacement, annuities, group insurance, liability, auto, fire, and theft insurance. Practical applications and use of insurance dealing with both personal and business situations will be noted. *NOTE A/See §200.2*

MANAGEMENT C420
Business Research Methods (3 credits)
Prerequisite: MANA C340, and QUAN C243-C244 or equivalent. This seminar focuses on the means by which social and organizational data can be gathered, analyzed, and interpreted. Needs of the firm for efficient, timely, and unobtrusive research are given special attention. Topic coverage includes applications of the scientific method, research design, field research techniques, data analysis, research utilization, and use of existing information sources. Student projects will parallel the classroom activities by designing and conducting business research studies of limited scale.

MANAGEMENT C441
Conflict Management (3 credits)
Prerequisite: MANA C340. An administrative approach to the study of interpersonal, intergroup, and intra-organizational conflict. Utilizes lectures, case studies, and interaction exercises to convey theory, empirical research, and applications.

MANAGEMENT C442
Managerial Concepts (3 credits)
Prerequisite: MANA C340. This course provides an opportunity for intense study of recent developmental topics within the discipline. Topics might include: Women in Management; Managing in Quebec; Management by Objectives; Long-range Planning; Equity Theories of Motivation; Changing Roles of Managers.

MANAGEMENT C451
Managing a Small Business (3 credits)
Prerequisite: Accountancy C213. This introductory course emphasizes the *operational* aspects of management that are uniquely important to a small enterprise. It provides opportunity to practise operational decision-making under conditions characteristic for small firms.

MANAGEMENT C452
Entrepreneurship (3 credits)
Prerequisite: Third-year standing in Commerce. This course will provide for the student a source of the basic techniques needed to start or purchase a business of his own. Consideration will be given to evaluation methods, the nature of an entrepreneur, legal and tax aspects and other aspects of interest to an individual starting a venture as a career alternative.

MANAGEMENT C454
Policy and Strategy for the Small Enterprise (3 credits)
Prerequisite: Third-year standing in Commerce. This course will help the student to familiarize himself with problems of *strategy formulation* and *implementation* within the framework of starting and/or managing a small or medium-sized enterprise. All functions of management will be considered in this context and field work will be encouraged.

MANAGEMENT C460
Business Policy I (3 credits)
Prerequisite: Third-year standing in Commerce and completion of all core courses. This course is designed to introduce the student to strategy formulation and implementation. Emphasis will be on integrating the learning of the programme in order to develop in students a global view of the organization. Cases will be drawn from the private, public, and non-profit sectors, and consideration will be given to policy problems in both the Canadian and international contexts.

MANAGEMENT C461
Business Policy II (3 credits)
Prerequisite: MANA C460. This course will concentrate on how the strategy formulated in Business Policy I will be implemented by the organization. Organization structures will be studied in differing environments. The relationships between organization structures and the organization's strategy will be analyzed. The problems encountered by general managers as well as middle managers in the process of the implementation of the set policies will be studied. *NOTE A/See §200.2*

MANAGEMENT C462
Personnel Management I (3 credits)
Prerequisite: MANA C340. The aim of this course is to provide a sound background in fundamentals, theory, principles and practice of personnel management. It will focus on the philosophies underlying current personnel policy and practices. *NOTE A/See §200.2*

MANAGEMENT C463
Personnel Management II (3 credits)
Prerequisite: MANA C462. The course will focus on the techniques of: recruitment, selection, training, executive development, labour relations, performance appraisal, and compensation administration.

MANAGEMENT C464
Labour and Industrial Relations I (3 credits)
Prerequisite: MANA C340. Labour relations is a survey course designed to provide a practical and comprehensive approach to the state of labour-management relations in Canada. *NOTE A/See §200.2*

MANAGEMENT C465
Collective Bargaining and Industrial Relations II (3 credits)
Prerequisite: MANA C464. This course is designed to help the student to look at day-to-day problems connected with negotiation and administration of collective bargaining agreements. The course puts some stress on the behavioural aspects of industrial relations. *NOTE A/See §200.2*

MANAGEMENT C466
(Also listed under International Business)
Management of Multinational Corporations (3 credits)
Prerequisite: MARK C462 or International Business C362, MANA C213, C266, C340. (Students who have taken International Business C466 may not take this course for credit.)

This is a course that demonstrates the analytical tools of operations and organization theory applicable within a multinational company. The course is designed to give students a grasp of the problems of strategy formulation and organization, and inculcates a general knowledge of the major parameters in which an international manager operates. Focus is on the Canadian as well as other international companies based in U.S.A., Europe, Japan, etc.

MANAGEMENT C467
Management Theory - Advanced (3 credits)
Prerequisite: MANA C266. This course will attempt to develop further the conceptual framework which was established in Management Theory I. To this end, it will examine selected management concepts and appraise their value in terms of their application to the actual practice of business. Issues such as the effect of innovation and technological change, managing the knowledge worker, organization planning, and comparative management will be considered. *NOTE A/See §200.2*
NOTE: Not offered in 1983-84.

MANAGEMENT C468
North American Labour Movements
(3 credits)
Prerequisite: MANA C464. This course focuses on the evolution of the labour movements in the U.S., Canada and Quebec since 1945. The structure and philosophy of American, Canadian and Quebec unions since that date will also be analyzed. The similarities and dissimilarities of the labour movements in the U.S., Canada and Quebec, their impact on society, and the emerging role of the state in union affairs will also be covered.

MANAGEMENT C469
Industrial Relations in the Public Sector
(3 credits)
Prerequisite: MANA C464. Historically, the government plays a third party role in collective bargaining. But as the state emerges as the largest employer in advanced industrial society, its combined roles as employer and mediator demand clarification and modernization. This course analyzes the development of the state as an employer, the growth of public sector unionism, and the impact of public sector collective bargaining on the private sector. Emphasis will be on the Quebec and Canadian experiences, with comparisons made to public sector industrial relations in other countries as well.

MANAGEMENT C470
Comparative Industrial Relations Systems
(3 credits)
Prerequisite: MANA C464. This course begins by presenting and contrasting the major theories of labour-management-state competition for control of the work situation. It then moves to applying those theories to national industrial relations systems in advanced industrial capitalist societies, in developed state socialist societies, and in underdeveloped societies.

MANAGEMENT C471
Issues in Quebec Industrial Relations
(3 credits)
Prerequisite: MANA C464. In this course, the focus is on industrial relations in specific industrial sectors in Quebec, stressing the impact of interests and forces outside the sector which influence the nature of industrial relations within it. The specific sectors will be chosen each term by the instructor and the students in order to respond to special interests of the students.

MANAGEMENT C472
Grievance, Arbitration and Collective Agreements (3 credits)
Prerequisite: MANA C464. What is the nature and limits of a collective agreement? What can be covered and what not? This courses discusses these questions and then goes on to analyze the grievance process and the various forms of grievance arbitration from technical and social perspectives.

MANAGEMENT C474
Institutional Administration (3 credits)
Prerequisite: MANA C340. Management of institutions and agencies in the non-profit (private and public) sector presents unique opportunities and challenges to the manager. This class will provide an introduction to that field. Emphasis will be given to those characteristics of the organization and functioning of these programmes which distinguish them from commercial firms, including the peculiar nature of human services, and the influence of social-political processes. Class activities will utilize theoretical and case material and field observations. Student projects will concentrate on policy formulation and administrative function in an agency of the student's choice.

MANAGEMENT C475
Business Law I (3 credits)
Prerequisite: Second-year standing in Commerce. This course deals with the Canadian and Quebec Law governing business organizations, and the Quebec Civil Law concerning property, contracts, sales, lease, agency, commercial paper, consumer protection, regulation of finance, warranties and product liability, civil responsibility and obligations. It is essentially the body of law governing the relationships among businessmen, and between businessmen and consumers; i.e., private business law.

MANAGEMENT C476
Business Law II (3 credits)
Prerequisite: MANA C475. Federal and provincial government regulation of business, including bankruptcy, anti-combines, trade marks and patents, labour law, insurance, special commercial contracts including secured transactions, fair employment, environmental law.

MANAGEMENT C477
The Law of Insolvency and Secured Transactions (3 credits)
Prerequisite: MANA C475. An examination of the various laws and cases, both Federal and Provincial, across Canada, governing commercial insolvency, with particular emphasis upon the liability of directors and officers, and the creditor's rights in bankruptcy, including the role of inspectors and the trustee. An examination of the various forms of secured transactions, of which creditors may avail themselves, more particularly financial institutions, including assignment of book debts, pledge, mortgages, bonds, trust deeds.

MANAGEMENT C478
Company Law (3 credits)
Prerequisite: MANA C475. The examination of important legal issues relating to the business corporation, including an analysis of their legal nature and structure, and the powers, rights, and obligations of directors, officers, and shareholders, including analysis of the legal implications, insider trading, company re-organization, mergers, joint ventures, and takeovers. These matters will be studied through the Federal, Quebec, and Ontario Companies' Acts and relevant court cases.

MANAGEMENT C479
Labour Law (3 credits)
Prerequisite: MANA C475. A study of the law and relevant court cases dealing with major labour-management issues, including collective bargaining, union certification, strikes, lock-outs, grievances, and arbitration. Covers Canadian law, primarily that of Quebec.

MANAGEMENT C499
Special Topics in Administration (3 credits)
Enrolment is restricted and subject to Departmental approval. Intended to complement and supplement business courses taken previously or concurrently, this course emphasizes business literature and modern thought. Students are encouraged to work independently on research topics of interest to them. Students repeating MANA C499 register for credits under MANA C498. *NOTE A/See §200.2*

61.90 Marketing

Associate Professor and Chairman of Department
P.W. PASOLD

Professor
V.H. KIRPALANI

Associate Professors
M.J. BERGIER
K.C. DHAWAN
Z. GIDENGIL
M. LAROCHE
K.L. MCGOWN

Assistant Professors
B. BARBIERI
U. DE BRENTANI
T.E. MULLER
C.A. ROSS

Sessional Lecturers
B. ISSENBERG
F.R. LINDSAY
R. MCKEOWN
J.A. ROSENBLATT
K. SIMON-MACDONALD
S. TREACY

Visiting Professors
R. MCTAVISH
G. RICE

61.90.1 PROGRAMMES

24 Major in Marketing
3 MARK C352
3 MARK C402
3 MARK C490
15 MARK credits offered by the Department.

12 Minor in Marketing
3 MARK C352
3 MARK C402
3 MARK C490
3 MARK credits offered by the Department.

CERTIFICATE IN MARKETING RESEARCH

NOTE: This programme is not open to students registered in a programme leading to the degrees of Bachelor of Commerce or Bachelor of Administration.

Admission Requirements
a) Diploma of Collegial Studies or the equivalent; MATH C208 and C209 or equivalent
or
b) Mature Students: MATH C201, C208, C209 or the equivalent, and a minimum of two years business experience in a supervisory capacity.

30 Certificate in Marketing Research
3 MARK C213
3 MARK C350
3 MARK C352
3 MARK C402
3 MARK C452
3 QUAN C221
3 QUAN C243
3 QUAN C244
3 QUAN C447
3 QUAN C448

MINOR IN MARKETING RESEARCH

NOTE: This programme is not open to students registered in a programme leading to the degrees of Bachelor of Commerce or Bachelor of Administration.

30 Minor in Marketing Research
3 MARK C213
3 MARK C350
3 MARK C352
3 MARK C402
3 MARK C452
3 QUAN C221
3 QUAN C243
3 QUAN C244
3 QUAN C447
3 QUAN C448

1. ACCO C213 and MANA C213 are waived as prerequisites for MARK C350 and C352 respectively for students taking this Minor.
2. Applicants with insufficient background in Mathematics must, in addition, take MATH C208 and C209.

61.90.2 COURSE DESCRIPTIONS

MARKETING C213
The Marketing Process (Introductory) (3 credits)
The course examines the nature of marketing and its role in society, as well as the interrelationships that are operative within the marketing process—both externally as related to society and the consumer, and internally as related to the organization of the marketing process within the firm. Many of the factors influencing these relationships are also examined. *NOTE A/See §200.2*

MARKETING C350
Marketing Management (3 credits)
Prerequisite: MARK C213. An introduction to the managerial concepts and practices involved in planning and carrying out corporate marketing policies and strategies. The four basic elements of the marketing mix, product, price, promotion and distribution and their interrelationships will be examined in detail. The case method will also be used in order to apply these concepts to realistic marketing problems.

MARKETING C351
Transportation and Marketing Logistics
(3 credits)

This course will deal with economic principles underlying the various modes of transport: i.e., rail, water, motor, air, and pipeline. Current problems of each will be discussed. In addition a survey of the principles of business logistics will be covered. Cases will be utilized when possible. *NOTE A/See §200.2*

NOTE: Students with credits for Administration C350 may not take this course for credit.

MARKETING C352
Buyer Behaviour (3 credits)

Prerequisite: MARK C213 and QUAN C243. This course analyzes the motivations, roles, and behaviour of the consumers, how they are affected by economic, social, and cultural influences, and how the marketer may model this behaviour for decision-making purposes. *NOTE A/See §200.2*

MARKETING C402
Marketing Research I (Methods) (3 credits)

Prerequisite: MARK C350 and QUAN C244. The role of research in the marketing process, the role of models, and the development of measurement techniques are discussed. Emphasis is placed on the nature and scope of marketing research methods for obtaining internal and external data, and on the steps and principles involved in gathering and analyzing data. The student is also briefly introduced to applications of marketing research. *NOTE A/See §200.2*

MARKETING C452
Marketing Research II (Application)
(3 credits)

Prerequisite: MARK C402. The application of marketing research to problem areas such as advertising, sales management and product strategy. Alternative research designs are applied to actual problems. *NOTE A/See §200.2*

MARKETING C453
Advertising and Sales Promotion Management (3 credits)

Prerequisite: MARK C350. The course deals with the theory and practice of advertising and sales promotion. Through case studies, field trips and simulations the student learns how to analyze media and budgets, plan promotional campaigns, utilize research findings, and evaluate advertising effectiveness. *NOTE A/See §200.2*

MARKETING C454
Sales Management (3 credits)

Prerequisite: MARK C350. The course deals with the theoretical and applied aspects of management of personal selling. Through cases, simulations and special presentations the student learns how to recruit, select, train, organize, motivate, evaluate, compensate, supervise, and control the sales forces. *NOTE A/See §200.2*

MARKETING C462
(Also listed under International Business)
Environment of World Business (3 credits)

Prerequisite: Second-year standing in Commerce. (Students who have taken International Business C362 may not take this course for credit.)

This is a foundation course in international business; the objective is to present information which will expose the student to cultural, social, political, economic, legal, and financial environments in which the Canadian businessman manages his operations abroad. Each student will be encouraged to develop his own philosophy toward international business activities by developing research and analytical skills in analyzing current and long-term problems perceived in different economic systems and environments. Specific topics include empirical dimensions of world economy, economic development, international trade and investment patterns, regional economic co-operation, area studies, Canadian nationalism, and foreign investment in Canada, etc.

MARKETING C463
Retail Management (3 credits)

Prerequisite: MARK C350. This course seeks to apply the theories of marketing and administration to the retail situation. Topics to be covered include site selection for single and multi-unit retail outlets, organizing and staffing the retail operation, the wholesaler-retailer relationship, consumer behaviour in the retail situation. The impact of such new developments as consumer cooperatives, franchising, discounting, and computer technology on the future of retailing will also be considered. *NOTE A/See §200.2*

MARKETING C464
Consumerism (3 credits)

Prerequisite: MARK C350. The current evolution of marketing and consumerism is subjected to critical evaluation and analytical review. Problem areas which may be examined include: marketing costs and efficiency, the social objectives of and objections to marketing, the impact of marketing on the environment, the 'pollution of advertising', ethics of marketers, and the role of governments in the market place. *NOTE A/See §200.2*

MARKETING C465
(Also listed under International Business)
International Marketing Management
(3 credits)

Prerequisite: International Business C362 or MARK C462. (Students who have taken International Business C465 may not take this course for credit). This course studies the management approach to international marketing, with emphasis on key variables that are controllable by the international marketing manager. Attention is focused on market measurement, product policy, channels, pricing, and promotion, with special emphasis on the development and control of multinational marketing strategies and programmes.

MARKETING C485
Industrial Marketing (3 credits)

Prerequisite: MARK C350. The course will focus on the managerial aspects of industrial marketing. The concept of organization buying behaviour and its impact on marketing strategy formulation will be discussed. Management of the industrial marketing mix considering product service development, intelligence, promotion, channels, and performance measurement will be covered, both in existing product lines and new product-launch activities.

MARKETING C486
Product Management (3 credits)

Prerequisite: MARK C350. In addition to analyzing product cycles and their characteristics and strategies which relate to each stage, this course delves into some of the more practical aspects of product policy-setting strategy formulation of the analysis, development, and execution of marketing programmes for new and existing products. This course should make the student familiar with one or more product management operations through case discussions and/or field studies.

MARKETING C490
Marketing Policy (3 credits)

Prerequisite: MARK C350 and 9 additional credits in Marketing courses. A capstone course in Marketing, utilizing readings, projects, and selected case studies requiring the student to incorporate concepts and techniques of previous marketing courses in determining marketing policy. *NOTE A/See §200.2*

MARKETING C491
Special Topics Seminar (3 credits)

This seminar is an inquiry into various selected topics which will vary from year to year. Students repeating MARK C491 register for credits under MARK C492. *NOTE A/See §200.2*

61.100 Quantitative Methods

Associate Professor and Chairman of the Department
D. WEST

Professor
G. PEDERZOLI
C. SANDBLOM

Associate Professors
M. ANVARI
H. BARTEL
C. BAYNE
A. CLAUS
D. DOREEN
S. GOYAL
Z. POPP
S. SRINIVASAN
R. WILLS
P. WRAGE

Assistant Professors
A. CRISALLI
H. EISELT
M. KUSY
E. MAHMOUD
G. RAJAMANNAR

Lecturers
E. BAYLIN
A. FARHOOMAND

61.100.1 PROGRAMMES

A student in any Major or Minor Programme in Quantitative Methods who has not received credit or exemption from QUAN C221, COMP C211 or equivalent will be required to take such a course in addition to the courses which are listed for the Programme.

24	**Major in Quantitative Methods**
9	QUAN C316, C327, C345
15	QUAN C412, C414, C415, C416, C423, C424 or ACCO C414, QUAN C425, C426, C444, C447, C448
24	**Major in Data Processing**
6	COMP C251, QUAN C327
9	QUAN C422, C423, C425
3	QUAN C424 or ACCO C414
6	QUAN C223, C417, C421, C426
12	**Minor in Business Statistics**
3	QUAN C345
3	QUAN C444
3	QUAN C447
3	QUAN C448
12	**Minor in Business Systems**
3	QUAN C327
3	QUAN C425
3	QUAN C424 or ACCO C414
3	QUAN C223, C417, C421, C423, C426
12	**Minor in Quantitative Methods**
3	QUAN C316, C327, C345
3	QUAN C412, C414, C415, C416
3	QUAN C444, C447, C448
3	QUAN C423, C426
12	**Minor in Managerial Operations Research**
12	QUAN C316, C412, C414, C415, C416
12	**Minor in Production Systems**
3	QUAN C365
3	MANA C345
3	QUAN C416
3	QUAN C412, C448

CERTIFICATE IN OPERATIONS RESEARCH

NOTE: This programme is not open to students registered in a programme leading to the degrees of Bachelor of Commerce or Bachelor of Administration.

Admission Requirements
a) Diploma of Collegial Studies or the equivalent; MATH C208, C209, C211 or the equivalent: QUAN C221, or COMP C211 or equivalent.
or
b) Mature Students; MATH C208, C209, C211 or the equivalent: COMP C211 or QUAN C221 or equivalent, and a minimum of two years business experience in a supervisory capacity.

30	**Certificate in Operations Research**
15	QUAN C243, C244, C313, C314, C327
15	QUAN C316, C345, C412, C414, C416, C426, C433, MANA C345

MINOR IN OPERATIONS RESEARCH

NOTE: This programme is not open to students registered in a programme leading to the degrees of Bachelor of Commerce or Bachelor of Administration.

Admission Requirements
MATH C208, C209, C211 or equivalent courses: COMP C211 or QUAN C221 or equivalent.

30	**Minor in Operations Research**
15	QUAN C243, C244, C313, C314, C327
15	QUAN C316, C345, C412, C414, C416, C426, C433, MANA C345

61.100.2 COURSE DESCRIPTIONS

QUANTITATIVE METHODS C221
Introduction to Data Processing (3 credits)

Prerequisite: None. An introductory course, to provide elementary computer literacy for students interested in the applications of computers in business and industry. Topics will include: the evolution of the computer; its functional organization, and related input and output; file organization and processing methods; how business applications may be designed for computers; the impact of computers on management; concepts of computer programming and the related methods of problem-solution planning; and an introduction to the BASIC programming language, including a number of programming assignments using the computer.

QUANTITATIVE METHODS C223
BASIC Language Programming (3 credits)

Prerequisite: QUAN C221 or COMP C211 or equivalent. The BASIC programming language will be studied in detail, with applications to mathematical as well as data-processing problems. Elementary and advanced features of the language, as implemented on the CDC Cyber computer system, will be fully covered. Emphasis will be on the structured design of interactive programmes with proper documentation and user interface.

QUANTITATIVE METHODS C243
Introductory Business Statistics I (3 credits)

Prerequisite: One CEGEP course in each of Algebra and Calculus, or equivalent. The objectives of the course are to introduce the student to some basic concepts of statistics in managerial decision-making, planning and analysis of data. Topics covered include: descriptive measures, frequency distribution analysis, probability theory, probability distributions, sampling theory, estimation and hypothesis testing. All examples will be derived from the functional areas of business, including Finance, Accounting, Marketing, Production, etc. Special attention will be paid to simple applications of sample designs in business. *NOTE See §200.7*

QUANTITATIVE METHODS C244
Introductory Business Statistics II (3 credits)

Prerequisite: QUAN C243 or equivalent. This course offers further development of probability and statistical concepts needed for management decisions. Topics covered include regression and correlation analysis, forecasting and smoothing techniques, time-series analysis, indices and analysis of variance. The usefulness of these techniques in managerial applications will be discussed with examples, problems and cases. *NOTE See §200.7*

QUANTITATIVE METHODS C313
Managerial Operations Research (3 credits)

Prerequisite: QUAN C243 and C244, or equivalent. This course is an introduction to operations research and its applications to the functional areas of administration. The basic model is Linear Programming. We discuss formulations, graphical and algebraic solutions, sensitivity analyses and the use of a computer package for solving large-scale problems. The related transportation, assignment, and integer programming problems are also discussed.

QUANTITATIVE METHODS C314
Operations Research and Production Systems (3 credits)

Prerequisite: QUAN C313 or equivalent. This course surveys several operations research and production models and their applications. The basic areas covered are: Project Management, Decision Theory, Inventory and Production Models, Simulation, Waiting-line models, Dynamic Programming, and Markov processes. The tools of probability analysis will be used.

QUANTITATIVE METHODS C316
Optimization Techniques (3 credits)

Prerequisite: QUAN C313 or equivalent. This course deals with optimization techniques in Management Sciences. It includes: linear programming, simplex algorithm, sensitivity testing and duality, postoptimality analysis, separable programming, dynamic programming, integer programming, stochastic programming. Management applications, such as portfolio selection, capital budgeting, production smoothing, inventory scheduling, competitive strategies, regeneration models will be given particular attention.

QUANTITATIVE METHODS C327
Business Systems (3 credits)

Prerequisite: QUAN C221 or equivalent. This course discusses the following: Concepts of system structuring, using various types of structure charts and models; computer-based information systems and other business organizations considered as systems and sets of sub-systems; positive and negative feedback and control; other general system concepts and types of charting techniques.

QUANTITATIVE METHODS C345
Business Decision Analysis (3 credits)

Prerequisite: QUAN C243 and C244, or equivalent. This course deals with the analysis of choices under uncertainty. It provides a coverage of Bayesian inference, decision theory, prior, posterior, and pre-posterior distributions (discrete and continuous). It includes the analysis of uncertain payoffs and biased measurements, analytical utility functions and their properties; the use of judgment probability and the principle of substitution for strategies. Economics of sampling, risk sharing, group decision will also be considered. Examples of decision making in production planning, research and development, manpower planning, finance, etc., will be presented and discussed.

QUANTITATIVE METHODS C353
Mathematical Analysis for Business—Calculus (3 credits)

Prerequisite: One CEGEP course in each of Intermediate Algebra and Calculus, or equivalents. The various applications of differential and integral calculus and the use of difference and differential equations in the functional areas of management; e.g. production, marketing, accounting, finance, personnel administration, and purchasing will be studied. *NOTE A/See §200.2*

QUANTITATIVE METHODS C354
Mathematical Analysis for Business—Matrix Algebra (3 credits)

Prerequisite: One CEGEP course in each of Intermediate Algebra and Calculus, or equivalents. Properties and applications of matrix algebra in the functional areas of manage-

ment; e.g., production, marketing, accounting and finance, personnel administration, and purchasing will be studied. Special applications (e.g. Input-Output Analysis) will be explored. *NOTE A/See §200.2*

QUANTITATIVE METHODS C365
Production Systems I (3 credits)
Prerequisite: QUAN C243, C244, and C313. In this course, an introduction to production systems of the enterprise is presented. Topics include: technology and design, forecasting, allocation of resources, scheduling, work methods and measurement, location problems, plant layout and materials handling, process control and quality control.

QUANTITATIVE METHODS C412
Network Models (3 credits)
Prerequisite: QUAN C313. The course includes the fundamentals of graph theory; Euler graphs and "Chinese postman" problems; Hamiltonian graphs and "travelling salesman" tours; shortest-route problems; maximal and feasible static and dynamic flows and circulations in networks. Applications will be studied in the fields of scheduling, input-output models and optimal plant locations.

QUANTITATIVE METHODS C414
Analytical Methods in Public Decision Making (3 credits)
Prerequisite: QUAN C313 and C314. The course surveys applications of Operations Research in the public sector. Efficiency and effectiveness issues in police deployment, municipal resource allocation, health care and criminal justice models are discussed. Equity and cost-benefit analysis are considered. Experience in Canada and other countries will be studied, using the tools of calculus, statistics, operations research and economics.

QUANTITATIVE METHODS C415
Non-Linear Programming (3 credits)
Prerequisite: QUAN C313 or equivalent. This course will introduce some fundamental concepts in non-linear optimization. The topics covered will include: convexity, formulation of non-linear problems, identification of optimal points, unconstrained and constrained optimization techniques. Emphasis throughout the course will be placed on business-related problems.

QUANTITATIVE METHODS C416
Inventory, Replacement, Maintenance Models (3 credits)
Prerequisite: QUAN C313 and C314, or equivalents. This course covers deterministic inventory models, stochastic inventory models, special structures of inventory control practice; replacement of items which deteriorate with time; replacement of items which fail suddenly; staffing problems; maintenance models; reliability theory; analysis of operational warranty techniques; renewal theory and managerial applications.

QUANTITATIVE METHODS C417
Commercial Software (3 credits)
Prerequisite: A course in a business computer programming language, e.g., QUAN C223, C421, COMP C221, C251, C341 or equivalent. A study of a representative sample of the software programme packages available commercially for use in business applications, including systems packages, such as file management, payroll, inventory, and bill-of-materials; control packages, such as critical-path scheduling, linear programming, and simulation. Sources of software; criteria for evaluating and choosing packages; implementation, maintenance, and modification of packages. Class and individual projects on the use of typical packages.

QUANTITATIVE METHODS C421
R.P.G. Programming (3 credits)
Prerequisite: A course in a business computer programming language, e.g., QUAN C223, COMP C221, C251, C341 or equivalent. R.P.G. stands for Report Program Generator. This course is designed to teach the students the logic of the R.P.G. compiler. The knowledge gained in class will be utilized to solve problems and write about 5 programmes geared for the business environment. There will be 3 lecture hours per week and approximately 5 to 10 hours of programming and debugging per week outside class.

QUANTITATIVE METHODS C422
Information Function Management (3 credits)
Prerequisite: QUAN C221 or COMP C211 or equivalent; plus QUAN C424 or ACCO C414 or COMP C455. The theory and practice of management as applied in commercial data processing. Planning for new business systems and computers; the feasibility study; the computer as an aid in planning; the organization of a data centre; staffing the data centre; job description and job specifications; maintenance and security; control methods for operation, data entry, processing and output.

QUANTITATIVE METHODS C423
The Management of Computer Programming (3 credits)
Prerequisite: COMP C251 or equivalent. *The role of the programmer in a business information system* will be surveyed, including the following topics: design and specification of a programme; planning and structuring a programme; documentation; testing procedures; maintenance programming; standard code modules; the history of programme development; job specifications and qualifications for a programmer; and the organization of large programming projects. A complete business application system will be programmed as a class team project.

QUANTITATIVE METHODS C424
Information System Analysis and Design I (3 credits)
Prerequisite: QUAN C221; and QUAN C327 (previously or concurrently). This course discusses the techniques of system analysis and evaluation applied to management information systems. Topics will include: basic concepts of management information systems and the impact of computers on managerial functions; where to computerize information in business; interactive and batch-mode transaction processing; file types and access methods, and the database concept; maintaining quality, economy, security and integrity in an information system; programming facilities and methodologies; methods of evaluating existing systems or proposed modifications. *NOTE A/See §200.2*

QUANTITATIVE METHODS C425
Information System Analysis and Design II (3 credits)
Prerequisite: QUAN C221 or COMP C211 or equivalent; plus QUAN C424 or ACCO C414 or COMP C455; plus QUAN C327 (previ-

ously or concurrently). This course discusses: techniques of business information system design; the different conventional applications of the computer such as production, inventory control, order entry, invoicing, accounting, and sales reporting; inter-relations among the various applications. Approximately half of the course grade will be based on the study of a particular application case, by students individually or in small groups. *NOTE A/See §200.2*

QUANTITATIVE METHODS C426
Business System Simulation (3 credits)
Prerequisite: QUAN C223 or COMP C211; and QUAN C327. Computer simulations of stochastic and deterministic systems will be studied, using procedural languages such as FORTRAN and BASIC, and also special simulation-oriented languages. Topics will include the collection and preliminary analysis of input data; verification; validation; design of model experiments; and the analysis and presentation of the results. Students will study and simulate a real-life situation.

QUANTITATIVE METHODS C433
Topics in Quantitative Methods (3 credits)
Prerequisite: Permission of the Department. This course is intended primarily for Majors students, and allows opportunity for more intensive examination of one or more particular topics in quantitative methods. The specific subject will vary according to the special interest of the professor offering the course in any given year. *NOTE A/See §200.2*
NOTE: Students repeating QUAN C433 register for credits under QUAN C434.

QUANTITATIVE METHODS C444
Business Experimental Analysis (3 credits)
Prerequisite: QUAN C243 and C244 or equivalent; COMP C211 or QUAN C223 or equivalent. This course deals with the design and the analysis of experiments relevant to the decision-maker in management fields. It includes analysis of variance, orthogonal classification, factorial experiments, block designs, mixed models, replication, calibration studies, economics of experimentation, nonparametric statistical inference, discriminant analysis. All functional areas of management application will be considered and used as examples and in cases.

QUANTITATIVE METHODS C447
Statistical Forecasting (3 credits)
Prerequisite: QUAN C244 or equivalent; COMP C211 or QUAN C223 or equivalent. This course presents the foundations of applied time-series analysis for managerial forecasting. It includes forecasting methods and objectives; fundamental concepts in time-series analysis; models for stationary time-series; model for nonstationary time-series; models for seasonal time-series; Box and Jenkins methods; forecast evaluation.

QUANTITATIVE METHODS C448
Business Sampling Techniques and Quality Control (3 credits)
Prerequisite: QUAN C243 and C244, or equivalent; COMP C211 or QUAN C223 or equivalent. This course consists of two parts: Part I deals with the different sampling methodologies and their applications to managerial problems. Problems relating to sampling of accounts receivable and payable, audit control, accounting information system, evaluation of inventories, market research studies, and assembly line situations, will be studied in detail. Part 2 involves understanding the use of different quality-control charts (C Chart, U Chart, X, and R Charts) in production and marketing environment.

61.110 Business Studies

CERTIFICATE IN BUSINESS STUDIES

This programme is not open to students registered in a programme leading to the degrees of Bachelor of Commerce or Bachelor of Administration.

Admission Requirements

a) Diploma of Collegial Studies or the equivalent; MATH C208 and C209 or the equivalent.

or

b) Mature Students: MATH C201, C208, C209 or the equivalent, and a minimum of two years business experience in a supervisory capacity.

30	**Certificate in Business Studies**
18	ACCO C213, ECON C201, FINA C314*, MANA C213, MARK C213, QUAN C243
12	Chosen from ACCO C218*, ECON C203*, FINA C315, MANA C266, MARK C350, QUAN C244

**Please note that ACCO C218 and ECON C203 are prerequisites for FINA C314.*

MINOR IN BUSINESS STUDIES

NOTE: This programme is not open to students registered in a programme leading to the degrees of Bachelor of Commerce or Bachelor of Administration.

Admission Requirements

MATH C208 and C209 or equivalent courses.

30	**Minor in Business Studies**
18	ACCO C213, ECON C201, FINA C314*, MANA C213, MARK C213, QUAN C243
12	Chosen from ACCO C218*, ECON C203*, FINA C315, MANA C266, MARK C350, QUAN C244

**Please note that ACCO C218 and ECON C203 are prerequisites for FINA C314.*

61.120 Economics

Bachelor of Commerce students who wish to follow an Honours or Major programme in Economics may meet the requirements of the Faculties of Commerce and of Arts and Science by following the programmes described below. The course descriptions for Economics courses may be found in §31.080.

Students seeking admission into the Honours programme require approval of the Department, following a recommendation from its Honours Committee.

Bachelor of Commerce students wishing to take a Minor in Economics may do so by selecting 30 credits in Economics in consultation with the Economics Department.

61.120.1 PROGRAMMES

90	**BComm Honours in Economics**
	Year I
6	ECON C201*, C203*
6	QUAN C243, C244[1]
6	MARK C213, FINA C314**
6	ACCO C213, C218
6	MANA C213, C266
	Year II
6	ECON C301, C302
6	ECON C303, C304
6	FINA C315, MARK C350
6	MANA C340, C475
6	ECON elective***
	Year III
18	ECON ADVANCED CORE[2]
6	QUAN C313, C314
6	MANA C460, and ECON elective in consultation with the Economics Department

**A student who has been granted exemptions for ECON C201 or C203 must take an equivalent number of credits in Economics*

***ECON C203 is a prerequisite for FINA C314.*

****If the student does not have a calculus course and a linear algebra course, ECON C325 and C326 should be taken at this stage.*

[1]*See §200.7*

[2]*See §31.080*

90	**B.Comm Major in Economics**
6	ECON C201*, C203*
6	QUAN C243, C244[1]
6	MARK C213, FINA C314**
6	ACCO C213, C218
6	MANA C213, C266
6	ECON C301, C302
6	ECON C303, C304
6	FINA C315, MARK C350
6	MANA C340, C475
6	ECON elective
6	ECON elective (400 level)
6	ECON elective
6	QUAN C313, C314
6	MANA C460, and elective, in consultation with the Economics Department
6	Elective

**A student who has been granted exemptions for ECON C201 or C203 must take an equivalent number of credits in Economics.*

**ECON C203 is a prerequisite for FINA C314.*

[1]*See §200.7*

61.130 Computer Science

For a Major in Data Processing See *§61.100*

61.140 Special Programmes in Accountancy

The three professional organizations listed below recognize certain Concordia University courses for course exemptions or standing in their professional designation programmes.

ORDER OF CHARTERED ACCOUNTANTS OF QUEBEC: Chartered Accountant (CA)

The Faculty of Commerce and Administration offers a Diploma in Accountancy which has been approved by the Order of Chartered Accountants of Quebec. Entry into the programme normally requires a Bachelor's degree in Commerce, and a Major in Accountancy with high academic standing. Applicants lacking an appropriate pattern of undergraduate work will be required to complete successfully certain qualifying courses, as assigned by the Director of the diploma programme. For further details, refer to the Concordia University Graduate Studies calendar.

PROFESSIONAL CORPORATION OF INDUSTRIAL ACCOUNTANTS OF QUEBEC: Registered Industrial Accountant (RIA)

Students who wish to follow the RIA programme must register with La Corporation professionnelle des comptables en administration industrielle du Québec, 1425 Mountain St., No. 310, Montreal, Quebec H3G 1Z3, Tel: 849-5767. A table of courses equivalencies for RIA and Concordia courses is shown below.

RIA Courses	Concordia University Courses
111 Principles of Accounting	ACCOUNTANCY C213 Financial I ACCOUNTANCY C218 Managerial I
122 Commercial Law	MANAGEMENT C475 Business Law I MANAGEMENT C476 Business Law II
123 Organizational Behaviour	MANAGEMENT C213 Foundations of Behaviour MANAGEMENT C340 Organizational Behaviour
212 Economics	ECONOMICS C201 Intro to Micro-Economics ECONOMICS C203 Intro to Macro-Economics
213 Communications and 229 Intermediate Accounting I	CEGEP or University degree ACCOUNTANCY C323 Intermediate I ACCOUNTANCY C326 Intermediate II
232 Quantitative Methods I	QUANTITATIVE METHODS C243 Intro Business Statistics I QUANTITATIVE METHODS C244 Intro Business Statistics II
314 Data Processing	COMPUTER SCIENCE C211 Introduction to Computers and Computing
331 Cost and Management Accounting	ACCOUNTANCY C218 Managerial I ACCOUNTANCY C403 Cost and Management Accounting
333 Quantitative Methods II	QUANTITATIVE METHODS C313 Managerial Operations Research QUANTITATIVE METHODS C314 Operations Research and Production Systems
339 Intermediate Accounting II	ACCOUNTANCY C323 Intermediate I ACCOUNTANCY C326 Intermediate II
424 Taxation	ACCOUNTANCY C441 Taxation I ACCOUNTANCY C442 Taxation II
442 Financial Management	FINANCE C314 Introduction to Finance I FINANCE C315 Introduction to Finance II
451 Information Systems	ACCOUNTANCY C414 Information Systems and Control
452 Internal Auditing	ACCOUNTANCY C429 Analytical Auditing ACCOUNTANCY C432 Financial Auditing

541 Advanced Management Accounting	ACCOUNTANCY C218 Managerial I ACCOUNTANCY C403 Cost and Management Accounting ACCOUNTANCY C422 Cost Accounting (Advanced) CONCORDIA COACHING SEMINAR IN MANAGEMENT ACCOUNTING (Note 3)
543 Advanced Financial Accounting	ACCOUNTANCY C323 Intermediate I ACCOUNTANCY C326 Intermediate II ACCOUNTANCY C325 Advanced CONCORDIA COACHING SEMINAR IN FINANCIAL ACCOUNTING (Note 3)
553 Management: Processes	MANAGEMENT C460 Business Policy I ACCOUNTANCY C422 Cost Accounting (Advanced) CONCORDIA COACHING SEMINAR IN CASE ANALYSIS (Note 3)

NOTES:

1. This table is subject to amendment.
2. A minimum grade of C is required to obtain an exemption from the Corporation for any of the above courses, except as noted in 3 below. Students taking university courses must satisfy the necessary prerequisite courses.
3. The Corporation's examinations in courses 541, 543, and 553 are mandatory. Coaching seminars for these courses are also mandatory prior to writing the Corporation's examinations. A student may not sit for the Corporation's examination in course 553 until all other Corporation courses or their equivalents have been successfully completed.

PROFESSIONAL CORPORATION OF CERTIFIED GENERAL ACCOUNTANTS OF QUEBEC: Certified General Accountant (CGA)

Students who wish to follow the CGA programme must register with the Professional Corporation of Certified General Accountants of Quebec located at:

152 Notre Dame St. East
Montreal, Quebec
H2Y 3P6
Telephone: 861-1823

The list of courses comprising the CGA Academic Programme is shown below:

Accountancy 213	Financial Accounting I
Accountancy 218	Managerial Accounting I
Accountancy 323/326	Intermediate Accountancy I and II
Accountancy 403	Cost and Management Accounting
Accountancy 414	Information System and Control
Accountancy 441/442	Taxation I and II
Accountancy 325 (1)	Advanced Accounting
Accountancy 410 (1)	Specialized Accounting
Accountancy 461 or 407 (1)	Accounting Theory
Accountancy 542 (4)	Advanced Taxation (Diploma Programme)
Accountancy 429/432 (2)	Analytical and Financial Auditing
Finance 314/315 (3)	Introduction to Finance I and II
Quantitative Methods 243/244	Introduction to Business Statistics I and II
Management 266	Management Theory and Practice
Management 340	Organization Behaviour
Management 475/476	Business Law I and II
Economics 201/203	Introduction to Micro and Macroeconomics

(1) Prerequisite to the Accounting 521 examination
(2) Prerequisite to the Auditing 517 examination
(3) Prerequisite to the Financial Controllership 316 examination
(4) Prerequisite to the Taxation 509 examination

NOTE: The listing above is subject to amendment as and when demanded by the CGA office.

61.150 Special Certificate Programmes

There are many organizations within the business community designed to serve the needs of people working in specialized areas of business. These organizations recognize that the educational qualifications of those seeking membership must be continually upgraded. Therefore, they sponsor an Academic Certificate which may be obtained through correspondence courses, or through a lecture programme.

The Faculty of Commerce and Administration cooperates with these business organizations by permitting personnel to register as Special (partial) students, and to take courses leading to a certificate to be awarded by the organization concerned.

Students must comply with the University regulations regarding dates of application and independent (partial) student entrance requirements as outlined in the Academic Calendar §11. In addition, they must meet the requirements of the specific organization.

The credit course taken may be applied towards the Bachelor of Commerce degree, provided the student meets the admission requirements and wishes to transfer from independent (partial) status to undergraduate status after completing a certificate programme. Students are advised that they must meet the Bachelor of Commerce curriculum requirements in force at the date of transfer.

Each certificate programme has one or more special courses required to complete the programme. These courses do not carry credit toward a Bachelor's degree and are designated as non-credit courses.

Students interested in the following certificate programmes may obtain details of required courses from the organization concerned:

The American Marketing Association (Montreal Chapter)
Institute of Canadian Bankers
The Montreal Personnel Association
The Insurance Institute of Canada
The Trust Companies Institute of Canada
Professional Secretaries International (CPS)

61.160 Concordia Centre for Management Studies

The Concordia Centre for Management Studies is designed to promote continuous and constructive relationships and frank discussion among the following groups: executives in business and government, faculty members and students. In this way, the relevance of the work of the Faculty to the needs of the business community is reinforced.

The Centre also serves as a meeting place where managerial skills can be developed and sharpened. It has five divisions:

1. *The Business Executives Club,* the backbone of the Centre, sets its direction through a Board of Directors whose Chairman is selected from among the business membership.
2. *The Business Information Office* runs the Centre's publication and information programme. Its principal information vehicle is the 'Montreal Business Report'.
3. *The Management Development Institute* develops, coordinates, and organizes seminars, symposia and public meetings.
4. *The Business Research Division* is essentially an applied research and diagnostic service to solve business problems.
5. *The Faculty Exchange Service* promotes the internship of faculty members and students in business schools or organizations throughout the world, and invites leading executives, scholars and students from abroad to become guests of the Faculty.

The Board of Directors of the Centre comprises senior executives of the business community each representing a specific sector of economic life in our region; university administrators; faculty members; and representatives of student organizations.

BOARD OF DIRECTORS

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71 Faculty of Engineering and Computer Science

71.10 FACULTY OF ENGINEERING AND COMPUTER SCIENCE
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71 Faculty of Engineering and Computer Science

Dean
M.N.S. SWAMY

Vice-Rector, Administration and Finance, and Associate Professor of Computer Science
GRAHAM MARTIN

Associate Dean, Academic Programmes
J. CHARLES GIGUERE

Assistant Dean, Student Affairs
J.W. ATWOOD

Assistant Dean, Planning and Priorities
G.D. XISTRIS

Director, Centre for Building Studies
PAUL P. FAZIO

Acting Chairman, Department of Civil Engineering
M.N.S. SWAMY

Chairman, Department of Electrical Engineering
A. ANTONIOU

Chairman, Department of Mechanical Engineering
T.S. SANKAR

Chairman, Department of Computer Science
C.Y. SUEN

71.10 Faculty of Engineering and Computer Science

NOTE: The following programmes are offered in the Faculty of Engineering:

1. Bachelor of Engineering degrees in Building*, Civil, Computer, Electrical, and Mechanical Engineering.
2. Bachelor of Computer Science degree.
3. Minor in Computer Science.
4. Certificate in Quality Control.

*The BEng degree in Building Engineering may be combined with a Master's degree in the same discipline.

The requirements for the programmes are different, and the appropriate section in the following pages must be consulted for each.

Applications for admission to the BEng or BCompSc programmes are submitted to the Admissions Office at the preferred campus.

General Admission requirements are listed in §13.

71.10.1 REGULAR PROGRAMMES

In addition, the following specific requirements exist for the various programmes. Applicants should specify their choice of programme on their application.

1. BEng (Building, Civil, Computer, Electrical, Mechanical)
BCompSc (General Business Option)
See Note 4
Certificate in Quality Control

CEGEP (Profile 10.4)

Mathematics 101
. 103
. 105
. 203

Completion of the above courses is a necessary condition for regular admission to a BEng programme, the minimum length of which will range from 126.50 to 132.00 credits depending on the programme chosen. Consideration will be given to a reduction in individual programme length in cases where the student has completed one or more of the CEGEP courses listed below. Corresponding Concordia numbers and credit values are also listed. In no case may a programme be reduced below a minimum of 105 credits.

CEGEP Numbers	Concordia Numbers
203-101	PHYS C204[3], C224[1]
203-201	PHYS C205[3], C225[1]
203-301	PHYS C206[3]
202-101	CHEM C205[3]
420-911	COMP C211[3]
242-101*	ENGR C212[2]
242-925 and 935*	ENGR C213[2]
242-301*	ENGR C214[2]
205-901	CIVI C231[2,75]
221-322	CIVI C271[3]

*Other CEGEP courses in graphics will be considered on an individual basis.

2. BCompSc (General Science, Mathematics and Digital Systems Options) See Note 4
CEGEP (Profile 10.10)

Mathematics 103
. 105
. 203
Physics 101
. 201
. 301
Chemistry 101
. 201
Biology 301

3. Minor in Computer Science
Although no specific entrance profile is required, (See Note 5) courses do have Ma-

thematics prerequisites. Students admitted to the Minor without the prerequisites or their equivalents will be required to do additional course work.

Notes:

1. Applications from graduates of CEGEP technology programmes will also be considered. Programme requirements for successful applicants will be determined on an individual basis.
2. Students in the BEng (Bldg) programme wishing to enter the combined degree programme (BEng and MEng in Building Engineering) must apply to the Assoc. Dean, Academic Programmes during the term in which they will be completing all but one of the required 200 and 300 level courses. A high standing is required for admission to the combined programme.
3. Effective Summer 1984, profile 10.10 will be the normal requirement for admission to a BEng programme.
4. Students entering a BCompSc programme will be required to take COMP C211^3 during their first year, in addition to regular programme requirements, if they have not obtained credit for Data Processing 420-911 (Introduction to Fortran) or its equivalent. COMP C211^3 is available during the summer.
5. Effective Summer 1985, profile 10.4 will be the normal requirement for admission to the Minor in Computer Science.

71.10.2 MATURE ENTRY

Admission requirements are listed in §14.

71.10.3 EXTENDED CREDIT PROGRAMME

Students admitted to an extended credit programme under the provisions of Sections 13.4.2 or 13.11 must successfully complete the requirements set out below:

Bachelor of Engineering

The individual programme requirements as set out elsewhere in Section 71.

MATH C202^3, C203^3, C204^3, C205^3

Bachelor of Computer Science

A minimum of 120 credits including:

90	Programme requirements as set out elsewhere in Section 71.80.3
3	COMP C211^3
12	MATH C202^3, C203^3, C204^3, C205^3
15	Additional credits, as indicated below:

a) *General Science, Mathematics and Digital Systems options:*
CHEM C205^3
PHYS C204^3, C205^3, C224^1, C225^1
and 4 credits chosen from
ACCO C213^3
BIOL C201^3
CHEM C206^3
ECON C201^3, C203^3
ENGR C212^2, C213^2
ESL 100^6
MARK C213^3
MANA C213^3
PHYS C206^3, C207^3, C226^1

b) *General Business option:*
15 elective credits chosen from outside the Faculty of Commerce and Administration and the Department of Computer Science.

71.10.4 ACADEMIC REGULATIONS

Students should refer to the section presenting the Academic Regulations of the University, §16.

For additional regulations governing the programme in Building Engineering leading to the combined degrees of Bachelor of Engineering (Civil) and Master of Engineering (Building), see §71.3 in the 1980/81 calendar.

71.10.5 ADDITIONAL REGULATIONS FOR THE BACHELOR OF ENGINEERING/BACHELOR OF COMPUTER SCIENCE

Definitions

Programme: The programme consists of:

1. All courses and other requirements specified in §71 for the BEng/BCompSc degrees and/or
2. All courses and other requirements specified in §14 for the Pre-Engineering/Computer Science Mature Student programme, or,
3. Any modifications to (1) and (2) as specified by the Faculty on an individual basis.

Academic Year: A period of time which includes a Summer and its subsequent Fall and Winter terms.

Appropriate member of the Dean's office: As appointed by the Dean of Engineering.

Student Adviser: Faculty member responsible for counselling students.

Objectives

The objectives of these regulations are:

First, to ensure that students can, with the assistance or intervention of the Faculty, assess themselves objectively, and plan programmes of study designed to meet their individual needs.

Second, to ensure that the Faculty can certify that all of its graduates are qualified to enter their profession.

Grading System

See §16.3 for the Concordia grading system. Results for courses specified in §71 for the BEng/BCompSc degrees are to be submitted as letter grades only, (e.g. C-, B+, A).

Regulations

1. Upon completion of the term of study where the student's programme includes a first attempt at not less than four of the courses specified for the BEng or B CompSc degrees in §71 of the undergraduate calendar, full-time students may register for six courses in the following term (See Table 1) provided that they have achieved a grade of C- or better in each of at least two thirds of the courses for which they were registered. Students who do not achieve a grade of C- or better in each of at least two thirds of the courses for which they were registered will have their programme for the next term determined by the appropriate member of the Dean's Office in consultation with their adviser.
2. Students' standings are assessed at the end of each academic year providing they have registered for at least four courses in the programme subsequent to their previous assessment, or in the case of a first assessment, subsequent to their admission to the programme. Standings of students requiring fewer than four courses to complete the BEng/BCompSc programmes will be determined on the basis of only those courses registered for in that academic year.

The assessment is based on the grades obtained for all courses in the programme for which they have registered, subsequent to their previous assessment, or in the case of a first assessment, subsequent to their admission to the programme. A grade obtained as a result of writing a supplemental examination and/or completing the work for a course graded 'INC' is not included in the assessment.

3. Students' standings are determined according to the following criteria:

Acceptable Standing

'C'- or better in each of at least two-third of the courses registered for with no more than one failure if eight or fewer courses have been registered for, or two failures if more than eight courses have been registered for (See Table 1).

Conditional Standing

'C'- or better in each of at least one-half of the courses registered for, with no more than two failures if eight or fewer courses have been registered for, or three failures if more than eight courses have been registered for (See Table 2).

Failed Standing

Failure to meet the criteria for acceptable or conditional standings, or conditional standing over two consecutive assessments.

4. Students in acceptable standing may proceed subject to the following conditions: Any failing grade must be cleared by passing the supplemental examination and/or completing the work for the course, or by repeating the failed course, or by replacing the failed course by an alternative approved by the student's Department.

5. Students in conditional standing may proceed for one year of study subject to the following conditions:

a) They must repeat successfully all courses in which failing grades were obtained, or replace them by alternatives approved by the appropriate member of the Dean's Office in consultation with the student's department.

b) They must repeat or replace by approved alternatives at least one-half of those courses in which they obtained grades in the 'D' range. The specific courses to be repeated will be determined by the appropriate member of the Dean's Office in consultation with the student's Department.

c) Full-time students may register for a maximum of five courses per term, part-time students for a maximum of two courses per term.

d) They must obtain acceptable standing at the time of their next assessment.

6. Subject to regulation 7 below, failed students may be considered for re-admission upon application to the appropriate member of the Dean's Office. If re-admitted, they will be placed on academic probation and their programme be determined at the time of their re-admission. They must return to acceptable standing at the time of their next assessment.

7. Failed students who were previously classed as failed students must withdraw from the University.

8. Students in a combined degree programme must meet academic regulations published in the Engineering section of the Graduate Calendar.

TABLE 1 MINIMUM CRITERIA FOR ACCEPTABLE STANDING

No. of Courses	4	5	6	7	8	9	10	11	12	13
Min. No. of Grades of 'C'- or above	3	4	4	5	6	6	7	8	8	9
Max. No. of Failing Grades	1	1	1	1	1	2	2	2	2	2

TABLE 2 MINIMUM CRITERIA FOR CONDITIONAL STANDING

No. of Courses	4	5	6	7	8	9	10	11	12	13
Min. No. of Grades of 'C'- or above	2	3	3	4	4	5	5	6	6	7
Max. No. of Failing Grades	2	2	2	2	2	3	3	3	3	3

71.10.6 AVAILABILITY OF PROGRAMMES

There is great flexibility in the method of progressing through a programme of Engineering or Computer Science at Concordia. This is shown in the table below. Students in the Engineering programme will also choose a 6- or 8-term sequence. Due to the heavy workload involved, 6-term sequences are only recommended for the exceptional student. Further information on sequencing may be found in the Programme Guide issued by the Associate Dean, Academic Programmes.

January Entrants

In addition to admitting students to its programmes for the fall session, the Faculty admits in January, students who have completed their collegial studies. In the case of the BEng programme, students will be admitted at the Sir George Williams Campus only; and if they are full-time students, must undertake full-time studies during the subsequent summer.

Industrial Parallel Studies (IPS)

Attention should be given to a programme unique to Concordia, that of Industrial Parallel Studies. IPS are available at the Sir George Williams Campus. They are offered for students who have successfully completed the

First Year of the programme, or its equivalent, and whose employers are prepared to certify that they will be employed for a maximum of 20 hours per week during the Fall/Winter Sessions. The Faculty timetable is arranged to allow students undertaking IPS to attend the University for either five half days or two and one-half days per week.

Priority for IPS is given to students who have completed the First Year of the programme in the Evening. All students undertaking such studies must have been granted permission by the office of the Assistant Dean, Student Affairs, Engineering and Computer Science. The pamphlet Industrial Parallel Studies, giving more detailed information, can be obtained upon request from the Assistant Dean's Office.

TABLE 3 *AVAILABILITY OF PROGRAMMES*

S—Sir George Williams Campus
L—Loyola Campus

	COMPLETE PROGRAMME		PARTIAL PROGRAMME	
	Full-time	Part-time	Full-time	Part-time
BEng				
BLDG	S			S**
CIVI	S		L*	S**
COMP	S		L*	S**
ELEC	S		L*	S**
MECH	S		L*	S**
BCompSc				
General Business	S,L	S,L		
General Science	S,L	S,L		
Digital Systems	S		L*	S**
Mathematics	S,L	S,L		
Minor in Computer Science	S,L	S,L		
Certificate in Quality Control		L		

* Students may complete the first third of their programme at the Loyola Campus. They must transfer to the Sir George Williams Campus for the final two thirds.

** Students must transfer to full-time studies after completion of the first third of the programme.

71.20 Bachelor of Engineering

71.20.1 CURRICULUM FOR THE DEGREE OF BACHELOR OF ENGINEERING

The University offers programmes leading to the degree of Bachelor of Engineering in the fields of Building, Civil, Computer, Electrical, and Mechanical Engineering. Students enrolled in the BEng programme in Building Engineering may, after the completion of all but one of their 200 and 300 level courses, apply through the Associate Dean, Academic Programmes to enter a combined degree programme leading to the joint award of a Bachelor's and Master's degree in this field. To be recommended for the degree of Bachelor of Engineering, students must satisfactorily complete all course requirements for the programme in which they are registered and achieve acceptable standing. Course requirements include the engineering core as defined in §71.20.4, programme core and option requirements. These are given in subsequent sections. They comprise a group of required courses with a group of elective courses which allow students to select part of their programme to provide some depth in an area of specialization according to their particular interests, or breadth in the general field of their chosen discipline.

In their final undergraduate year, students with high standing may apply for permission through the Associate Dean's Office to register for a limited number of graduate courses offered by the Faculty in lieu of some courses in the undergraduate programme.

Students admitted for January 1981 or earlier should consult the programme guide available in the Associate Dean's Office in order to determine their programme requirements.

Successful completion of a BEng programme requires hard work and considerable dedication on the part of each student. Courses are presented with the expectation of an average of about two hours of 'outside' work for each lecture hour and about one-half hour of 'outside' work for each hour spent in the laboratory for all programmes of study.

71.20.2 ACCREDITATION BY THE CANADIAN COUNCIL OF PROFESSIONAL ENGINEERS

The Accreditation Board of the Canadian Council of Professional Engineers (CCPE) has accredited the Bachelor of Engineering curricula for Building, Civil, Electrical, and Mechanical Engineering. The Board has recommended to the Constituent Associations of CCPE that graduation from the above curricula be considered as sufficient academic qualification for purposes of registration in

all Provinces and Territories in Canada. In accordance with CCPE rules, accreditation will be sought for the programme in Computer Engineering during the year prior to the award of the first degrees in this discipline.

71.20.3 MEMBERSHIP IN THE ORDER OF ENGINEERS OF QUEBEC

The Order of Engineers of Quebec (OEQ) has fully accredited the Bachelor of Engineering curricula in Building, Civil, Electrical, and Mechanical Engineering, and will admit graduates of these three programmes as members according to the Engineers Act and the OEQ By-Laws and providing applicants can complete the French language requirements.

Accreditation for the programme in Computer Engineering will be sought.

Quebec law now requires that candidates seeking admission to provincially-recognized Quebec professional corporations (such as the Order of Engineers of Quebec) be tested on their ability in the French language.

Information on this testing programme of the Office de la langue française may be obtained by writing to: Office de la langue française, 800 Place Victoria, 15e étage, Montréal, Québec, H4Z 1G8, telephone: 873-8361.

71.20.4 ENGINEERING CORE

To be recommended for the degree of Bachelor of Engineering, students admitted after January 1981 must satisfactorily complete the following courses as well as those specified for their programme as shown in subsequent sections. Students admitted for January 1981 or earlier should consult the Programme Guide available in the Associate Dean's Office.

CHEM C205*	General Chemistry I	3.00
COMP C211	Introduction to Computers and Computing	3.00
PHYS C204*	Mechanics	3.00
PHYS C205*	Electricity and Magnetism	3.00
PHYS C224*	Introduction to Experimental Mechanics	1.00
PHYS C225*	Introduction to Experimental Electricity	1.00
EMAT C212*	Calculus and Differential Equations	3.00
EMAT C232*	Matrices and Advanced Calculus	3.00
EMAT C271*	Applied Probability and Statistics	3.00
EMAT C391	Numerical Methods in Engineering Systems	3.00
ENGR C212*	Technical Drawing	2.00
ENGR C273*	Basic Circuit Analysis	3.75
ENGR C281*	Technical Literature	2.00
ENGR C402	Engineering Law	1.50
ENGR C410**	Technical Report	1.50

6 credits chosen from the 'Social Aspects of Engineering' group.***

ENGR C491	Engineers and Society	3.00
ENGR C492	Historical Impact of Technology on Society	3.00
ENGR C493	Engineering Resources and Environment	3.00
ENGR C494	Effect of Technology on on the Person	3.00
ENGR C495	Technology Assessment and Control	3.00
ENGR C496	Science Policy and Engineering Innovation	3.00
		42.75

*Offered in both Day and Evening.

**To be submitted at the beginning of the academic year in which the student expects to graduate.

***Students in Building Engineering must successfully complete BLDG C481 as part of the 6 credit requirement. (For all students, 3 of these 6 credits may be replaced by a specified course or courses in French, or by other non-technical courses subject to the approval of the Assistant Dean, Student Affairs. A list of such courses is available from the Assistant Dean's Office.)

71.20.5 GRADUATION REQUIREMENTS

Students must complete their programme in acceptable standing.

71.20.6 SCHEDULING OF COURSES

A programme guide indicating course schedules for both the 6 and 8 term Engineering and Computer Science sequences is available from the Faculty Office on either campus.

71.30 Centre for Building Studies

Director and Professor of Building Engineering
PAUL P. FAZIO

Professor
CEDRIC MARSH

Associate Professors
D. COLLINS
DOREL FELDMAN.
RICHARD W. GUY
H. KINH HA
T. STATHOPOULOS
J.C. WANG

Assistant Professors
MARVIN M. SHAPIRO
ROBERT W. WHITE

Lecturer
MAL TURAGA

Adjunct Professor
J.C. HUOT

Adjunct Associate Professor
A.D. RUSSELL

CENTRE FOR BUILDING STUDIES

Building Engineering, as a discipline, encompasses the body of knowledge which pertains to all phases in the life-cycle of a constructed facility, namely conception, planning, design, construction, operation and disposal.

Concordia has developed a unique undergraduate programme leading to a BEng in Building Engineering designed to meet the needs of the construction industry for engineers familiar with the overall design of built facilities.

In addition to the basic engineering sciences, the programme emphasizes the fundamentals of building materials, structural analysis and design, building services: acoustical, heating, lighting, air conditioning, economics and project management. The student also has available certain electives which will be of use in the design of various phases of a building.

Students who complete all but one of their 200 and 300 level courses with a sufficiently high standing may apply through the Assoc. Dean, Academic Programmes to enter a combined programme leading to the joint award of both a BEng and an MEng degree in Building Engineering. It is expected that those who aspire to leadership roles within the building industry will enter such a combined programme. The combined programme requires a further 12 months of full-time study, after which graduates will not only have obtained further grounding in the basics, but will also have specialized in one of four branches: Building Science, Building Environment, Building Structures, Construction Management. For details of the Graduate Component, refer to the graduate calendar.

71.30.1 COURSE REQUIREMENTS

The programme in building engineering consists of the Engineering Core, the Building Engineering Programme Core, and a further 9 elective credits chosen from a specified group of courses. The nominal length of the programme is 130.50 credits. Adjustments may be made on an individual basis as per §71.10.1.

Note: No new students have been admitted to the combined degree programme BEng (Civil) and MEng (Bldg) after summer 1980. Requirements for students currently in the programme are set out in the 1980-81 calendar with the following modifications: BLDG C475 and CIVI C435 have been replaced by CIVI C372 and C381. Students may also refer to the Faculty programme guide available from the Dean's Office.

Engineering Core (42.75 credits)

See §71.20.4. Note that students in the BEng (Bldg) programme must replace one of the required Social Aspects courses with BLDG C481.

Building Engineering Core

		Credits
BLDG C341	Building Engineering Systems	3.00
BLDG C363	Building Science I	4.00
BLDG C364	Building Science II	4.00
BLDG C371	Building Service Systems	3.00
BLDG C401	Building Economics	3.00
BLDG C461	Building Enclosure Design	3.00
BLDG C471	Building Energy Systems	3.00
BLDG C476	Heat Transfer in Buildings	3.00
CIVI C452	Matrix Analysis of Structures	3.00
EMAT C311	Transform Calculus and Partial Differential Equations	3.00
ENGR C213	Descriptive Geometry	2.00
ENGR C242	Statics	3.00
ENGR C243	Dynamics	3.00
ENGR C244	Mechanics of Materials I	3.75
ENGR C251	Thermodynamics I	3.00
ENGR C341	Mechanics of Materials II	3.00
ENGR C361	Fluid Mechanics I	3.00
ENGR C362	Fluid Mechanics II	3.75
CIVI C271	Surveying	3.00
CIVI C321	Engineering Materials	3.75
CIVI C353	Structural Design	4.00
CIVI C354	Structural Analysis	4.00

CIVI C431	Soil Mechanics	4.50
CIVI C491	Contruction Engineering	3.00
		78.75

Elective Courses

A student must choose a minimum of 9 credits from the following list of elective courses.

		Credits
CIVI C453	Advanced Reinforced Concrete Design	3.50
CIVI C454	Advanced Steel Structures	3.50
CIVI C455	Introduction to Structural Dynamics	3.00
CIVI C435	Foundation Design	3.75
BLDG C459	Computer Aided Building Design	3.00
BLDG C462	Building Materials I	3.00
BLDG C465	Fire and Smoke Control in Buildings	3.00
BLDG C472	Building Energy Conservation Technologies	3.00
BLDG C473	Control of Noise in Buildings	3.00
BLDG C474	Building Illumination	3.00
BLDG C491	Labour and Industrial Relations	3.00
BLDG C492	Construction Methods	3.00
BLDG C493	Legal Issues in Construction	3.00

71.40 Department of Civil Engineering

Acting Chairman of the Department
M.N.S. SWAMY

Professors
H.B. POOROOSHASB
A.S. RAMAMURTHY
M.S. TROITSKY
Z.A. ZIELINSKI

Associate Professors
B. ASHTAKALA
MATTHEW McC. DOUGLASS
CARL GOLDMAN
A.M. HANNA
JULIUS KRANTZBERG
M.S. NASSER
O.A. PEKAU

Adjunct Associate Professors
L. CARBALLADA
N.S. VERMA

Adjunct Assistant Professors
H.M.S. KEIRA
D. TURNER

DEPARTMENT OF CIVIL ENGINEERING

Civil Engineering is primarily concerned with the creation of the complex systems of construction facilities for sound economic growth of the community. In a broad sense, civil engineers learn to control and modify the environment effectively so as to satisfy the needs and desires of society. Their responsibility for design ranges from foundations and superstructures of our common structures such as buildings, bridges, dams, tunnels, wharves, etc., to many unusual structures such as rocket installations, containment vessels for nuclear reactors, supports for radio telescopes, frame works for aircraft. In addition, civil engineers are concerned with the engineering aspects of water resources, rivers, harbours, irrigation and drainage; with the disposal of wastes and the control of the quality of air and water; with highways, railroads, airports and other transportation facilities; with measuring, mapping and interpreting the physical conditions of the surface of the earth; and with planning metropolitan areas and conducting and managing their public facilities.

The programme is designed so that students, after having obtained grounding in the fundamentals of Civil Engineering, may specialize in one of four options.

71.40.1 COURSE REQUIREMENTS

The programme in Civil Engineering consists of the Engineering Core, the Civil Programme Core, and one of the options described below. The nominal length of the programme is 130.00 credits. Adjustments may be made on an individual basis as per §71.10.1. Students admitted prior to September 1981 should consult the programme guide available from the Assistant Dean's Office to determine their individual course require ents.

Engineering Core (42.75 credits)
See §71.20.4.

Civil Programme Core

		Credits
EMAT C311	Transform Calculus and Partial Differential Equations	3.00
ENGR C213*	Descriptive Geometry	2.00
ENGR C242*	Statics	3.00
ENGR C243*	Dynamics	3.00
ENGR C244*	Mechanics of Materials I	3.75
ENGR C251*	Thermodynamics I	3.00
ENGR C341	Mechanics of Materials II	3.00
ENGR C361	Fluid Mechanics I	3.00
ENGR C362	Fluid Mechanics II	3.75
ENGR C403	Engineering Economy	1.50
CIVI 231	Geology	2.75
CIVI C271**	Surveying	3.00
CIVI C321	Engineering Materials	3.75
CIVI C341	Civil Engineering Systems	3.00
CIVI C353	Structural Design	4.00
CIVI C354	Structural Analysis	4.00
CIVI C372	Transporation Engineering	3.00
CIVI C381	Water Resources Engineering	3.50
CIVI C431	Soil Mechanics	4.50
CIVI C481	Water Supply Systems	3.50
CIVI C482	Urban Sanitation	3.50
CIVI C491	Construction Engineering	3.00
		69.50

*Offered in both Day and Evening.
**Summer school to be taken before entering second year of study in the BEng programme.

Option Course Requirements

Technical Electives

Technical Electives in the Department of Civil Engineering are offered in four broad interrelated areas. Students must complete one of the option cores listed below, and a minimum of 6.00 further elective credits, chosen outside the option core.

1. Structural Engineering (S)
2. Water Resources Engineering (W)
3. Transporation Engineering (T)
4. Geotechnical (G)

	Elective Credits	*Option*
CIVI C434 Geotechnical Analysis	3.00	G
CIVI C435 Foundation Design	3.75	G
CIVI C451 Advanced Structural Analysis	4.00	S
CIVI C452 Matrix Analysis of Structures	3.00	X**
CIVI C453 Advanced Reinforced Concrete Design	3.50	S
CIVI C454 Advanced Steel Structures	3.50	S
CIVI C455 Introduction to Structural Dynamics	3.00	X**
CIVI C471 Highway Design	4.50	T
CIVI C472 Traffic Engineering	3.00	T
CIVI C474 Urban Transportation Planning	3.00	T
CIVI C483 Hydrology	3.50	W
CIVI C484 Hydraulic Engineering	3.50	W
CIVI C485 Hydraulic Structures	3.50	W,G

**acceptable as elective course for all options.

71.50 Department of Electrical Engineering

Professor of Engineering and Chairman of the Department
ANDREAS ANTONIOU

Professors
B.B. BHATTACHARYYA
STANLEY J. KUBINA
BELA A. LOMBOS
S.D. MORGERA
V. RAMACHANDRAN
M.N.S. SWAMY

Associate Professors
A.J. AL-KHALILI
V.K. BHARGAVA
J. CHARLES GIGUERE
SERGE A. GRACOVETSKY
JAMES F. LINDSAY
V. PANUSKA
R.V. PATEL
M.H. RASHID
O. SCHWELB
P.D. ZIOGAS

Assistant Professors
M.O. AHMAD
N. DIMOPOULOS
C. TRUEMAN

Adjunct Professors
H. FARFAN
K. FEHER
F. REZA
A.N. VENETSANOPOULOS

Adjunct Associate Professors
P.E. ALLARD
E. CERNY
C. CHARALAMBOUS
W. HWANG
G.E. SEGUIN
V. STEFANOVIC

Adjunct Assistant Professors
C.S. GARGOUR
W.W. KOTIUGA
K. RAMU

DEPARTMENT OF ELECTRICAL ENGINEERING

Electrical Engineering is concerned primarily with energy and information: their conversion, transformation and transmission in the most efficient, convenient and reliable manner. Computer Engineering, on the other hand, focuses more directly on the design and use of computer technology for information processing.

Computer and electrical engineers are involved in the processing and transmission of information. The revolution in electronics which began some thirty years ago with the invention of the transistor, and which continues today through the advent of the microprocessor, has had a profound impact not only on our capability to communicate with each other or to store masses of easily retrievable information about ourselves, but also on our ability to construct 'intelligent' machines. This production both of new devices, and of sophisticated applications for these devices (for example in bio-medical engineering) continues apace. While contributing to what has been, and will continue to be, a major transformation in the structure of our society, electrical and computer engineers may, in the course of their careers, be engaged in a variety of activities: research, development, design, manufacture, operation, maintenance, control, and marketing of devices and systems. In so doing, they will be called upon to assist or direct the efforts of other engineers, individuals or groups of people of widely varying backgrounds and abilities.

Electrical engineers are also involved in the conversion of energy from its original mechanical, thermal, nuclear, wind or solar form to electricity. They have primary responsibility for the design and control of continent spanning power grids which are used to transport this energy from generating stations to the consumer, as well as for designing efficient converters which will transform this energy back into forms which meet the needs of the user for heat, refrigeration, light, electromechanical devices of all types, and for the running of a host of electronic communications and data processing systems.

Therefore, electrical and computer engineers must receive a professional education of great breadth and depth. Great emphasis is placed at Concordia on giving the student a solid foundation in mathematics, electrical and computer engineering fundamentals and design techniques so that they will be equipped both to contribute and to respond to a rapidly evolving technology. Of equal importance, though much less time is devoted to it in the curriculum, is the fostering of an awareness of the interaction of the profession and the society it serves, and of the ability to communicate effectively both with colleagues and with fellow citizens.

71.50.1 PROGRAMMES OFFERED

The Department of Electrical Engineering offers two disctinct programmes, one of which leads to the Bachelor of Engineering in Electrical Engineering, the other to the Bachelor of Engineering in Computer Engineering.

71.50.2 COURSE REQUIREMENTS (BENG IN ELECTRICAL ENGINEERING)

The programme in Electrical Engineering consists of the Engineering Core, §71.20.4, the Electrical Programme Core shown below, and one of four elective options. The nominal length of the programme is 126.50 credits. Adjustments may be made on an individual basis as per §71.10.1.

Students admitted prior to September 1981 should consult the Programme Guide available in the Associate Dean's Office.

Engineering Core (42.75 credits)
See §71.20.4.

Electrical Programme Core

		Credits
PHYS C206* or	Waves and Modern Physics	
PHYS C207	Heat and Sound	3.00
EMAT C252	Complex Variables	3.00
EMAT C312	Laplace Transforms and Advanced Differential Equations	3.00
ENGR C245*	Applied Mechanics	3.00
ENGR C274*	Physical Systems and Measurements	3.75
ENGR C372	Fundamentals of Control Systems	3.75
ENGR C403	Engineering Economy	1.50
ELEC C251*	Fundamentals of Electrical Engineering	3.00
ELEC C311	Electronics I	4.50
ELEC C312	Electronics II	4.50
ELEC C321	Electrical Properties of Materials	3.75
ELEC C331	Electromechanics	4.50
ELEC C341	Linear Network Analysis	3.00
ELEC C351	Electromagnetic Field Theory	3.00
ELEC C401	Electrical Engineering Seminar	1.00
ELEC C461	Communication Circuits and Systems	3.75
COEN C411	Computer Organization and Software	3.75
COEN C413	Logic Design I	3.75
		59.50

*Offered in both day and evening.

Technical Electives

Programme Requirements include the completion of one of four options.

Students may replace one course from within their option by a technical elective from another electrical engineering option. No special permission is required.

1. Electronics/Communications Option

Students must complete a minimum of 24.25 credits from:

		Credits
COEN C414	Logic Design II	3.75
COEN C417	Microprocessor Systems	4.50
ELEC C411	Pulse Circuits	4.50
ELEC C415	Electronics III	4.50
ELEC C421	Solid State Devices	3.75
ELEC C422	Integrated Circuit Design	4.50
ELEC C441	Modern Filter Design	3.75
ELEC C442	Digital Filters	3.00
ELEC C453	Microwaves and Optics: Transmission	3.75
ELEC C454	Microwaves and Optics: Circuits	3.75
ELEC C455	Acoustics	3.00
ELEC C462	Statistical and Digital Communications	3.75
ELEC C481	Electrical Engineering Project	4.00
ELEC C482	Topics in Electrical Engineering	3.00
ENGR C472	System Optimization	3.75

2. Computer Engineering Option

(Available only to students admitted prior to Summer 1981) Students must complete:

		Credits
COEN C414	Logic Design II	3.75
COEN C416	Design of Digital Computers	3.00
COEN C474	Digital Computers in Systems	3.75
ELEC C411	Pulse Circuits	4.50

Students must also choose a minimum of 9.25 credits from:

COEN C417	Microprocessor Systems	4.50
COMP C231*	Introduction to Discrete Structures	3.00
COMP C241*	Computer Languages and Programming	3.00
ENGR C471	Time Domain Analysis and Design	4.00
ENGR C472	System Optimization	3.75
ELEC C442	Digital Filters	3.00
ELEC C462	Statistical and Digital Communications	3.75
ELEC C481	Electrical Engineering Project	4.00
ELEC C482	Topics in Electrical Engineering	3.00

*Students who wish to enter the M.Comp.Sc. programme should register for COMP C231 and C241.

3. Power Option

Students must complete:

		Credits
ELEC C333	Electric Machines	3.75
ELEC C431	Electrical Power Systems	3.75
ELEC C433	Static Power Converters	3.75

Students must also choose a minimum of 13.00 credits from:

		Credits
COEN C414	Logic Design II	3.75
COEN C417	Microprocessor Systems	4.50
COEN C474	Digital Computers in Systems	3.75
ENGR C412	Operations Research	3.00
ENGR C471	Time Domain Analysis and Design	4.00
ENGR C472	System Optimization	3.75
ENGR C473	Control System Design	3.75
ELEC C411	Pulse Circuits	4.50
ELEC C481	Electrical Engineering Project	4.00
ELEC C482	Topics in Electrical Engineering	3.00

4. Systems Option
Students must complete:

		Credits
ENGR C471	Time Domain Analysis and Design	4.00
ENGR C472	System Optimization	3.75
ENGR C473	Control System Design	3.75

Students must also choose a minimum of 12.75 credits from:

		Credits
COEN C414	Logic Design II	3.75
COEN C417	Microprocessor Systems	4.50
COEN C474	Digital Computers in Systems	3.75
ENGR C412	Operations Research	3.00
ELEC C431	Electrical Power Engineering	3.75
ELEC C441	Modern Filter Design	3.75
ELEC C442	Digital Filters	3.00
ELEC C462	Statistical and Digital Communications	3.75
ELEC C481	Electrical Engineering Project	4.00
ELEC C482	Topics in Electrical Engineering	3.00

71.50.3 COURSE REQUIREMENTS (BENG IN COMPUTER ENGINEERING)

The programme in Computer Engineering consists of the Engineering Core, §71.20.4, the Computer Engineering Programme Core, and a minimum of 10.75 elective credits chosen from a specified group of courses. The nominal length of the programme is 130.25 credits. Adjustments may be made on an individual basis as per §71.10.1.

Engineering Core: (42.75 credits)
See §71.20.4

Computer Programme Core

		Credits
PHYS C206 or	Waves and Modern Physics	
PHYS C207	Heat and Sound	3.00
EMAT C252	Complex Variables	3.00
EMAT C312	Laplace Transforms and Advanced Differential Equations	3.00
ENGR C245	Applied Mechanics	3.00
ENGR C274	Physical Systems and Measurements	3.75
ENGR C372	Fundamentals of Control Systems	3.75
ENGR C403	Engineering Economy	1.50
ELEC C251	Fundamentals of Electrical Engineering	3.00
ELEC C311	Electronics I	4.50
ELEC C312	Electronics II	4.50
ELEC C341	Linear Network Analysis	3.00
ELEC C401	Electrical Engineering Seminar	1.00
ELEC C411	Pulse Circuits	4.50
ELEC C461	Communication Circuits and Systems	3.75
COMP C231	Introduction to Discrete Structures	3.00
COMP C241	Computer Languages and Programming	3.00
COMP C443	Computer Operating Systems	3.00
COEN C411	Computer Organization and Software	3.75
COEN C413	Logic Design I	3.75
COEN C414	Logic Design II	3.75
COEN C416	Design of Digital Computers	3.00
COEN C417	Microprocessor Systems	4.50
COEN C474	Digital Computers in Systems	3.75
		76.75

Computer Engineering Electives (Minimum of 10.75 credits)

		Credits
ENGR C471	Time Domain Analysis and Design	4.00
ENGR C472	System Optimization	3.75
ELEC C442	Digital Filters	3.00
ELEC C462	Statistical and Digital Communications	3.75
COEN C481	Computer Engineering Project	4.00

71.60 Department of Mechanical Engineering

Professor of Engineering and Chairman of the Department
T.S. SANKAR

Professors
R.M.H. CHENG
C.K. KWOK
S. LIN
H.J. MCQUEEN
M.O.M. OSMAN
K. THULASIRAMAN

Associate Professors
W.G. HABASHI
F.D. HAMBLIN
V.S. HOA
K.I. KRAKOW
R.A. NEEMEH
S. SANKAR
J. SVOBODA
G.D. XISTRIS

Assistant Professors
R.B. BHAT
A.E. BLACH
T. KREPEC
V. LATINOVIC
A.J. SABER

Adjunct Professor
G.M. MCKINNON

Adjunct Associate Professor
R.V. DUKKIPATI

Adjunct Assistant Professors
M.H. ATTIA
D.P. KENNY
K. KIVENKO
S. LEQUOC

DEPARTMENT OF MECHANICAL ENGINEERING

As in all branches of professional engineering, mechanical engineers are concerned with the creation of devices, systems, structures, and processes for human use. Their task is to apply scientific, mathematical, economic and social knowledge to satisfy specific needs. The services required of mechanical engineers encompass a very wide range of professional activity, such as design, research, development and management carried out in environments of equally diverse nature, such as industry, medicine, private practice, university and government.

Representative fields of endeavour for mechanical engineers include all forms of power generating equipment (steam, internal combustion, nuclear, jet rocket, fuel cells), the design of mechanisms and machines, controls and automation, vibration analysis, environmental control (heating, ventilation and refrigeration), materials handling and precision measurement.

Any of the specific fields may involve the design, construction and control of machines and equipment as well as the research and development of new processes, materials and techniques.

In view of the very wide range of activities in the field, the mechanical engineering curriculum consists of a combination of core courses with a series of technical electives. Strong emphasis is given to building on the principles presented in the basic engineering science and physical systems courses of the Engineering Core. Further core courses are taken by all mechanical engineering undergraduates and deal with topics basic to the field, including thermodynamics, fluid mechanics, machine design and metallurgy. Technical electives allow students to obtain some specialization in a particular area of the field, depending on their interests and expected future professional activity. Three options of about 19 credits each are available in thermo fluid and propulsion engineering (Option A), design and production engineering (Option B), and in automation and control systems (Option C). A major option, of about 43 credits, in industrial engineering will be introduced over a two year period (1981-83). This option is designed to give students the background needed to define and solve problems related to the conception or improvement and implementation of integrated industrial systems involving people, materials and money.

Students wishing to enter the industrial engineering option should apply to the Assistant Dean, Student Affairs, preferably prior to the completion of 30 credits in their programme.

71.60.1 COURSE REQUIREMENTS

The programme in Mechanical Engineering consists of the Engineering Core, §71.20.4, the Mechanical Programme Core and option requirements as shown below. The nominal length of the programme is 132.00 credits. Adjustments may be made on an individual basis as per §71.10.1.

Students admitted prior to September 1981 should consult the Programme Guide available in the Associate Dean's Office.

Mechanical Engineering Core

		Credits
EMAT C311	Transform Calculus and Partial Differential Equations	3.00
ENGR C213	Descriptive Geometry	2.00
ENGR C221	Materials Science	3.00
ENGR C242	Statics	3.00
ENGR C243	Dynamics	3.00
ENGR C244	Mechanics of Materials I	3.75
ENGR C251	Thermodynamics I	3.00

ENGR C274	Physical Systems and Measurements	3.75
ENGR C361	Fluid Mechanics I	3.00
ENGR C372	Fundamentals of Control Systems	3.75
MECH C311	Mechanical Engineering Laboratory I	3.00
MECH C312	Mechanical Engineering Design I	3.00
MECH C321	Stress and Failure in Metals	3.00
MECH C373	Instrumentation and Measurements	3.75
MECH C411	Mechanical Engineering Laboratory II	3.00
		47.00

Option Requirements

Options A, B and C

Students in options, A, B, and C must complete the following courses (List I), plus one option core and a minimum of 9 further elective credits.

List I

ENGR C214	Machine Drawing	2.00
ENGR C362	Fluid Mechanics II	3.75
ELEC C334	Electric Machinery	3.75
ENGR C403	Engineering Economy	1.50
MECH C341	Kinematics of Mechanisms	2.50
MECH C342	Dynamics of Machines	2.50
MECH C351	Thermodynamics II	3.75
MECH C352	Heat Transfer I	3.75
MECH C441	Mechanical Engineering Design II	3.00
		26.50

1. Option Core A—Thermo Fluid and Propulsion

		Credits
MECH C452	Heat Transfer II	3.75
or		
MECH C462	Turbomachinery and Propulsion	3.00
MECH C461	Gas Dynamics	3.75

2. Option Core B—Design and Production

		Credits
MECH C421	Deformation and Mechanical Shaping of Metals	3.75
MECH C445	Machine Design	3.50

3. Option Core C—Automation and Control Systems

		Credits
ENGR C473	Control System Design	3.75
MECH C463	Fluid Power Control	3.75

Choose a *minimum* of 9 credits from:

	Preferred for Option	*Credits*
COEN C411 Computer Organization and Software	B,C	3.75
COEN C474 Digital Computers in Systems	B,C	3.75
ENGR C412 Operations Research	B	3.00
ENGR C473 Control System Design	A,B	3.75
ENGR C475 Process Dynamics and Control	A,C	3.75
ELEC C318 Industrial Electronics	A,B,C	4.50
MANA C345 Production Management	B	3.00
MECH C423 Thermal Treatment and Processing of Metals	A,B,C	4.00
MECH C443 Mechanical Vibrations	A,B,C	3.75
MECH C452 Heat Transfer II	A	3.75
MECH C453 Environmental Control	A,B,C	3.00
MECH C455 Introduction to Nuclear Engineering	A,C	3.00
MECH C462 Turbomachinery and Propulsion	A	3.00
MECH C463 Fluid Power Control	B	3.75
MECH C464 Aerodynamics	A	3.00
MECH C465 Gas Turbine Design	A	3.75
MECH C471 Microprocessors and Applications	B,C	3.00
MECH C481 Design or Experimental Project	A,C	3.00

Students may also choose from the following courses, providing these can be accommodated within their timetable:

		Credits
ENGR C471 Time Domain Analysis and Design	B,C	*4.00*
ENGR C472 System Optimization	C	*4.50*

Option D—Industrial Engineering

Students in Option D must complete the following courses (List II), plus 6 further elective credits.

Students wishing to enter the industrial engineering option should apply to the Assistant Dean, Student Affairs, preferably prior to the completion of 30 credits in their programme.

List II

		Credits
ACCO C213	Financial I	3.00
COEN C411	Computer Organization and Software	3.75
ELEC C318	Industrial Electronics	4.50
EMAT C272	Advanced Probability and Statistics	3.00
INDU C310	Human Factor Engineering	3.00
INDU C313	Industrial Economics	3.00

INDU C320	Production Engineering I	3.00
INDU C321	Production Engineering II	3.00
INDU C323	Industrial Operations Research	3.00
INDU C330	Organizational Management	3.00
INDU C480	Industrial Engineering Project	4.00
INDU C481	Industrial Engineering Seminar	1.00
		37.25

Choose 6 credits from:

FINA C314	Introduction to Finance I	3.00
INDU C410	Safety Engineering	3.00
INDU C411	Industrial Applications of Computers	3.00
INDU C420	Mathematics of Optimization	3.00
INDU C423	Inventory Control	3.00
ELEC C334	Electric Machinery	3.75
MECH C471	Microprocessors and Applications	3.00

71.70 Course Descriptions

For equivalent course numbers under the old system, please consult the 1981-82 Undergraduate Calendar. Students who have taken a given course under an old number may not repeat it for credit under an equivalent number.

Engineering Mathematics

EMAT C212
Calculus and Differential Equations (3 credits)
Prerequisite: MATH C204 (CEGEP Mathematics 105) previously or concurrently, MATH C205 (CEGEP Mathematics 203). Introduction to ordinary differential equations, with applications to engineering problems. Functions of several variables: differentiation and multiple integrals. Lectures: 3 hours per week. Tutorials: 2 hours per week.

EMAT C232
Matrices and Advanced Calculus (3 credits)
Prerequisite: EMAT C212 previously or concurrently. Review of matrix algebra; solution of systems of linear differential equations with examples drawn from physical systems; vector spaces, characteristic value problems, Cayley-Hamilton theorem with applications. Vector calculus: Gradient, Divergence, Curl, Green's Theorem. Divergence Theorem, Stokes Theorem. Lectures: 3 hours per week. Tutorials: 2 hours per week.

EMAT C252
Complex Variables(3 credits)
Prerequisite: EMAT C212; EMAT C232; previously or concurrently. Algebra of complex numbers in Cartesian and polar forms; functions and inverse functions of complex variables. Derivatives and Cauchy-Riemann, analytic and harmonic functions. Exponential, trigonometric, hyperbolic and logarithmic functions. Complex line integrals, Cauchy-Goursat theorem, Cauchy integral formula. Taylor's and Laurent's series. Residue theorem and applications. Lectures: 3 hours per week.

EMAT C271
Applied Probability and Statistics(3 credits)
Prerequisite: MATH C205 (CEGEP Mathematics 203). Elementary probability theory. Binomial, normal and Poisson distribution. Sampling and decision theory. Curve fitting. Correlation theory. Applications to the analysis of experimental results. Factorial plans. Lectures: 3 hours per week. *NOTE See §200.7*

EMAT C272
Advanced Probability and Statistics(3 credits)
Prerequisite: EMAT C271. Time series analysis, regression and correlation analysis, forecasting and smoothing techniques. Extreme value statistics, Monte Carlo simulation, reliability analysis. Applications to general engineering and industrial engineering problems. Lectures: 3 hours per week.

EMAT C311
Transform Calculus and Partial Differential Equations (3 credits)
Prerequisite: EMAT C232. Elements of complex variables. The Laplace transform: Laplace transforms and their properties, solution of linear differential equations with constant coefficients. Further theorems and their applications. The Fourier transform: orthogonal functions, expansion of a function in orthogonal functions, the Fourier series, the Fourier integral, the Fourier transform, the convolution theorem. Partial differential equations: physical foundations of partial differential equations, introduction to boundary value problems. Lectures: 3 hours per week.

EMAT C312
Laplace Transforms and Advanced Differential Equations (3 credits)
Prerequisite: EMAT C232 and C252. The Laplace Transform, its inverse and properties. Laplace Transform of periodic functions. Applications to solution of linear differential equations with constant coefficients. Orthogonal functions, Fourier series, Fourier Transform. The convolution theorem. Properties of special functions (e.g. Bessel, Legendre). Partial differential equations and introduction to boundary value problems. The Sturm Liouville problem. Lectures: 3 hours per week.

EMAT C391
Numerical Methods in Engineering (3 credits)
Prerequisite: COMP C211, EMAT C232. Roots of algebraic and transcendental equations; function approximation; numerical differentation; numerical integration; solution of simultaneous algebraic equations; numerical integration of ordinary differential equations. Lectures: 3 hours per week. Tutorials: 1 hour per week.

Engineering

ENGR C212
Technical Drawing (2 credits)
Lettering, instruments, drawing practices; orthographic projections; pictorial views; isometric views, perspectives, sectional views, auxiliary views; dimensioning practices; working drawings: standard components, drawings of steel and concrete structures, mechanical and piping drawings, electrical and architectural drawings. Lectures: 2 hours per week. Tutorials: 2 hours per week.

ENGR C213
Descriptive Geometry (2 credits)
Prerequisite: ENGR C212. Spatial relationships of points, lines, planes, and solids. Application to pictorial representation of

three-dimensional objects, intersections of planes and solids, developments, mapping and topographical problems. Lectures: 2 hours per week. Tutorial: 2 hours per week.

ENGR C214
Machine Drawing (2 credits)
Prerequisite: ENGR C213. Detailed study of machine elements and components, their representation in design and working drawings. Industry standards, use of drafting manuals and catalogues in the process of design. Tolerance systems. Application of graphical methods in conception and details of mechanical components. Consideration of methods of manufacture in finalizing design details, demonstration of computer-aided drafting. A student design/drafting project will be an integral part of this course. An eight hour introduction to machine shop techniques forms part of the tutorials. Lectures: 2 hours per week. Tutorial: 2 hours per week.

ENGR C221
Materials Science (3 credits)
Prerequisite: CHEM C205 (CEGEP Chemistry 101). Relationships between properties and internal structure; classification of materials; atomic bonding; molecular, crystalline and amorphous structures; crystal imperfections and mechanisms of structural change; microstructures; structures and mechanical properties of polymers. Phase diagrams. Introduction to heat treatment. Lectures: 3 hours per week. Tutorial: 1 hour per week.

ENGR C242
Statics (3 credits)
Prerequisite: EMAT C212 previously or concurrently; PHYS C204 & C224 (CEGEP Physics 101), MATH C204 (CEGEP Mathematics 105). Resultant of force systems; equilibrium of particles and rigid bodies; distributed forces; statically determinate systems; cables and trusses; friction; moments of inertia; virtual work. Introduction to stress, strain and bending moment diagrams. Lectures: 3 hours per week. Tutorial: 1 hour per week.

ENGR C243
Dynamics (3 credits)
Prerequisite: EMAT C212 and ENGR C242. Kinematics of a particle and rigid body; forces and accelerations; work and energy; impulse and momentum; dynamics of a system of particles and rigid bodies, introduction to vibrations. Lectures: 3 hours per week. Tutorial: 1 hour per week.

ENGR C244
Mechanics of Materials I (3.75 credits)
Prerequisite: ENGR C242, EMAT C212, EMAT C232 previously or concurrently. Stress, strain and elasticity; analysis and design of structural and machine elements subject to axial, torsional and bending loads; shear and bending moment diagrams; deflections; combined stresses; dynamic loading; repeated loads, stress concentration and fatigue. Lectures: 3 hours per week. Tutorial: 1 hour per week. Laboratory: 3 hours per week, alternate weeks.

ENGR C245
Applied Mechanics (3 credits)
Prerequisite: PHYS C204 & C224 (CEGEP Physics 101); EMAT C212 previously or concurrently. Resultant of force systems, equilibrium of particles and rigid bodies; centroids and centre of gravity, friction; moments of inertia; kinematics of particles and rigid bodies; force and acceleration; work and energy; impulse and momentum for particles. Lectures: 3 hours per week. Tutorial: 1 hour per week.

ENGR C251
Thermodynamics I (3 credits)
Prerequisite: MATH C203 (CEGEP Mathematics 103). Basic principles of thermodynamics and their application to various systems composed of pure substances and their homogeneous non-reactive mixtures. Simple power production and utilization cycles. Lectures: 3 hours per week. Tutorial: 1 hour per week.

ENGR C273
Basic Circuit Analysis (3.75 credits)
Prerequisite: EMAT C212, previously or concurrently; PHYS C205 & C225 (CEGEP Physics 201). Current, voltage, power and energy; resistance, inductance and capacitance; sources. Series and parallel circuits. Formulation of equilibrium equations using node-to-datum voltages and using mesh currents. Networks theorems: Superposition, reciprocity, Thevenin, Norton, maximum power transfer. Step response of simple RC, RL and RLC circuits. Sinusoidal steady-state response of RLC circuits, power in a.c. circuits, frequency response, resonance. Coupled coils and transformers. Lectures: 3 hours per week. Tutorial: 1 hour per week. Laboratory: 3 hours per week, alternate weeks.

ENGR C274
Physical Systems and Measurements (3.75 credits)
Prerequisite: ENGR C273. Time differentiation, time integration, and singularity functions. Network representation of mechanical, fluid and thermal systems in terms of lumped elements and through and across variables. Generalization of the methods of the basic electrical circuit analysis to the formulation of equilibrium equations and their solution. Application to problems of modelling and measurements in physical systems. Generalized impedance and system functions. Operational block diagrams and analog computer solutions. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ENGR C281
Technical Literature (2 credits)
Discussion of the corpus of scientific and technical literature, its forms and impact. Searching the literature. Research and referencing methods. Automated information retrieval sources and methods. Technical and scientific style. Preparation of reports, technical papers, abstracts, memos, letters, manuals, brochures, specifications, theses, etc. Some attention will be given to the special requirements of the Canadian milieu, and to Canadian studies on scientific and technical information. Lectures: 2 hours per week.

ENGR C341
Mechanics of Materials II (3 credits)
Prerequisite: EMAT C232, ENGR C244. Analysis of statically indeterminate systems; composite beams; introduction to inelastic action; energy methods; theories of failure; shear centre; unsymmetrical bending; bending of curved bars; introduction to linearized mathematical theory of elasticity; introduction to elastic stability. Lectures: 3 hours per week. Tutorial: 1 hour per week.

ENGR C361
Fluid Mechanics I (3 credits)
Prerequisite: EMAT C212 and C232; ENGR C251. Fluid properties and flow characteristics; fluid statics, basic laws for systems and control volumes, conservation of mass, linear-momentum equations, first law of thermodynamics, Bernouli equation, kinematics of flow, dynamics of flow, dimensional analysis and similitude, characteristics of real fluid flow, flow measurement. Lectures: 3 hours per week. Tutorial: 1 hour per week.

ENGR C362
Fluid Mechanics II (3.75 credits)
Prerequisite: ENGR C361. Incompressible viscous flow, steady closed conduit flow, fluid resistance and boundary layer effects, differential equations for open channel flow, specific energy, gravity waves, hydraulic jump. Fluid machinery. Selected experiments in incompressible flow and in open channel flow. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ENGR C372
Fundamentals of Control Systems
(3.75 credits)
Prerequisite: EMAT C311 or C312; ENGR C274. General feedback theory; time and frequency domain analysis of feedback control systems; stability criteria; root-locus methods; modelling of d.c. servo; design of simple feedback systems; introduction to statespace methods. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ENGR C402
Engineering Law (1.5 credits)
Different branches of law; engineering registration; negligence; law vs. ethics; contracts; labour organizations and legislation; workmen's compensation act. Lectures: 1½ hours per week.

ENGR C403
Engineering Economy (1.5 credits)
Economy studies for decision making, annual cost, present worth, capitalized cost, rate of return. Depreciation and the capital recovery period. Sources of funds and cost of capital. Incremental and sunk costs. Economy studies for retirement or replacement. Influence of income taxes on economy studies. Lectures: 1½ hours per week.

ENGR C410
Technical Report (1.5 credits)
Prerequisite: ENGR C281. All students in the B.Eng. programme must submit a technical report on entering their final year. This report is to be from 2,000 to 5,000 words in length and on a topic closely related to the option being taken. The topic must be approved by each student's department at least 3 months prior to submission and the letter of approval must accompany the report. The report must represent a review of a current engineering problem or current engineering practice. In some cases a student's summer work may provide a suitable basis for a report.

The report must be suitably researched, namely it should be based on a minimum of 10 references. It must be suitably documented (including library call numbers of all references) and illustrated, must be typewritten on one side only of 8½ x 11" white paper of good quality and must be suitably bound. Students are referred to Form and Style: Theses, Reports, Term Papers, 4th Edition, by Campbell and Ballou, published by Houghton Mifflin.

The original and two photocopies which will be used for marking must be submitted to the office of the Assistant Dean, Undergraduate Student Affairs, by 5:00 p.m. on the third Monday after Fall classes begin. Unless late submission is authorized by the Engineering Undergraduate Studies Committee, any report submitted after this date will receive an F-INC grade, which grade will appear on the student record. Once marked, a second entry of the course code will be made along with the final grade.

ENGR C412
Operations Research (3 credits)
Prerequisite: COMP C211 (CEGEP Data Processing 911) or equivalent. An introduction to the application of mathematical models to various industrial problems; queuing theory, game theory, linear programming, inventory theory and Monte Carlo Processes. Lectures: 3 hours per week.
NOTE: Students with credit for INDU C323 may not take this course for credit.

ENGR C471
Time Domain Analysis and Design
(4 credits)
Prerequisite: ENGR C372. State space analysis and design of continuous and discrete systems. Controllability and observability, modal control, pole placement techniques, Luenberger observers, Liapunov stability. Lectures: 4 hours per week.

ENGR C472
System Optimization (3.75 credits)
Prerequisite: EMAT C391. Linear least squares. Properties of quadratic functions with applications to steepest descent method, Newton's method and Quasi-Newton methods for nonlinear optimization. One dimensional optimization. Introduction to constrained optimization, including the elements of Kuhn-Tucker conditions for optimality. Least pth/ and mini-max optimization. Application of optimization techniques to engineering problems. Lectures: 3 hours per week. Laboratory: 3 hours alternate weeks.

ENGR C473
Control System Design (3.75 credits)
Prerequisite: ENGR C372. A course in industrial control design procedures by case study, including practical sensing, control, and actuating elements; optimization of system performance by choice of components and compensation; nonlinearitites, introduction to multi-loop systems. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ENGR C475
Process Dynamics and Control
(3.75 credits)
Prerequisite: ENGR C372. Dynamics of mechanical and chemical processes; system capacity; resistance; piping complexes; characteristics and dynamics of control valves; process time constants; proportional, reset and derivative control actions; feedforward and cascade control; direct digital control. Case studies on liquid-level control, temperature and heat exchanger control. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

Social Aspects of Engineering

ENGR C491
Engineers and Society (3 credits)
Prerequisite: ENGR C281; registration in the final 3 terms of the programme. Sociological analysis of the interaction between the engineering profession and society, the development of the profession, growth of technical societies, trends in engineering and engineering technology education, relationship to other professions. Role of engineers in Canadian industry, government and industrial research. Lectures: 3 hours per week.

ENGR C492
Historical Impact of Technology on Society (3 credits)
Prerequisite: ENGR C281; registration in the final 3 terms of the programme. Social history of technology and of science including ancient and medieval periods, industrial revolution and modern times. Engineering and scientific creativity, social and environmental problems created by uncontrolled technology, appropriate technology. Lectures: 3 hours per week.

ENGR C493
Engineering, Resources and Environment (3 credits)
Prerequisite: ENGR C281; registration in the final 3 terms of the programme. Sources, consequences and control of air, water, noise, solid and radiation pollution. Management of mineral and energy resources. Conservation of resources through engineering efficiency, recycling and communal practices. Renewable resources. Case studies of engineering projects. Lectures: 3 hours per week.

ENGR C494
Effect of Technology on the Person (3 credits)
Prerequisite: ENGR C281; registration in the final 3 terms of the programme. Psychological effects of various technologies. Changes in personal, family and community values arising from various patterns of industrial development. Enhancement of personal development by technology, adaptation of the machine to man; the organization man. Lectures: 3 hours per week.

ENGR C495
Technology Assessment and Control (3 credits)
Prerequisite: ENGR C281; registration in the final 3 terms of the programme. The organization of mechanisms and institutions to control and mediate the unwanted and unanticipated side-effects of contemporary technology. Environmental impact assessment, analysis of industrial health and safety, risk analysis. Technological forecasting, future studies, appropriate technology, the conserver society. Relationships of technology assessment to science policy, resource planning and energy strategy. Lectures: 3 hours per week.

ENGR C496
Science Policy and Engineering Innovation (3 credits)
Prerequisite: ENGR C281; registration in the final 3 terms of the programme. An analysis of the basic concepts in science policy. The allocation of scientific manpower, priorities in research, development and demonstration (R, D and D) in the public and private sector, the process of invention and innovation and their social impact, the various institutions dealing with scientific and technological development. National and regional technological strategies, to technology assessment, resource conservation and energy strategy. Lectures: 3 hours per week.

Building Engineering

BLDG C341
Building Engineering Systems (3 credits)
Prerequisite: COMP C211; EMAT C232, previously or concurrently. Introduction to systematic solution of building engineering problems. Techniques treated include linear programming, network analysis, nonlinear programming, geometric programming and an introduction to decision analysis and simulation. Techniques illustrated by application to problems in building science, building environment, building structures and construction management. Lectures: 3 hours per week.

BLDG C363
Building Science I (4 credits)
Prerequisite: ENGR 243. General introduction to the aural and visual environment. Subjective and objective scales of measurement. Laws of psychophysics. Introduction to vibration. The hearing mechanism. Transfer of sound. Passive control of noise in buildings, transmission loss. Absorption and reverberation time. Active control of the aural environment. Visual perception. Photometry, brightness, luminance and illumination. Natural lighting of buildings. Artificial lighting. Colorimetry. Lectures: 3 hours per week. Tutorial: 1 hour per week. Laboratory: 2 hours per week.
NOTE: Students having credit for BLDG C362 may not take this course for credit.

BLDG C364
Building Science II (4 credits)
Prerequisite: ENGR C251, C362 previously or concurrently. General introduction to the thermal environment. Topics include: heat, temperature, thermal storage, conduction: steady state and transient processes. Convection: Natural and forced. Radiation. Combined radiative and convective surface transfer. Psychrometrics. Thermal comfort. Condensation: Surface and interstitial. Wind and snow effects. Lectures: 3 hours per week. Tutorial: 1 hour per week. Laboratory: 2 hours per week.
NOTE: Students having credit for BLDG C361 may not take this course for credit.

BLDG C371
Building Service Systems (3 credits)
Prerequisite: ENGR C251; BLDG C363. Principles of design of building service systems, including HVAC systems. Power and water supply systems, and vertical transportation systems. Inter-relationships and economics of various service systems. Lectures: 2 hours per week. Laboratory: 2 hours per week.

BLDG C401
Building Economics (3 credits)
Prerequisite: BLDG C341. Development of economic performance measures of interest

to developers, owners, contractors and users. Sources of finance and the determinants of the cost of money. Treatment of life cycle costing, economic risk; tax regulation, inflation, forecasting techniques; model building, cost indices, elemental estimating, computerized information systems. Consideration of economic analyses of projects, single buildings and building components. Lectures: 3 hours per week.

BLDG C459
Computer Aided Building Design
(3 credits)
Prerequisite: BLDG C341, C401 previously or concurrently. Identification of objectives, decision variables, processes and information flow in building design. Applications and evaluation of computer systems to components of building design process. Determination of decision variables in problem modelling and sensitivity of results. Current applications in structural analysis and design, space layout, electrical distribution systems, HVAC design, lighting design, estimating, specification editing and scheduling. Evaluation of issues of interdisciplinary information control and interchange. Lectures: 3 hours per week.

BLDG C461
Building Enclosure Design (3 credits)
Prerequisite: BLDG C363, C364 and CIVI C321. Influences on the exterior design of buildings. The interrelationship of visual, technical and contextual needs are examined for larger urban projects. Special emphasis is given to energy conserving designs. Analytical techniques are discussed for preliminary and detail design. Lectures: 3 hours per week.

BLDG C462
Building Materials I (3 credits)
Prerequisite: CIVI C321. Engineering properties of building materials such as: plastics, synthetic fibres, adhesives, sealants, caulking compounds, foams, sandwich panels, composites, polymer-concrete systems, fiber-reinforced concretes, plastic mortars, polymers for flooring, roofing, synthetic wall papers. Their structural, thermal and acoustical properties. Consideration of corrosion, bio- and thermal-degradation, stability to ultraviolet and solar radiation. Laboratory sessions to illustrate synthesis, application, testing, deterioration and protection. Lectures: 3 hours per week.

BLDG C463
Fire and Smoke Control in Buildings
(3 credits)
Prerequisite: BLDG C363, C364. Topics treated include: fire and smoke control; failure mechanisms of building enclosure, illustrated by case studies; performance codes for enclosure systems; enclosure design for extreme operation environments. Lectures: 3 hours per week.

BLDG C471
Building Energy Systems (3 credits)
Prerequisite: BLDG C371. Principles of design of interior environmental systems including thermal comfort, thermal load and HVAC systems analysis. Lectures: 2 hours per week. Laboratory: 2 hours per week.

BLDG C472
Building Energy Conservation Technologies
(3 credits)
Prerequisite: BLDG C471 previously or concurrently. Identification of the optimal energy performance achievable with various types of buildings and service systems.
Reduction of infiltration. Control systems and strategies to achieve optimal energy performance. Low energy heat rejection and recuperation systems. Effective utilization of daylight, heat pumps, passive and active solar heaters, heat storage, heat pipes and thermosyphons in new and old buildings. Lectures: 3 hours per week.

BLDG C473
Control of Noise in Buildings (3 credits)
Prerequisite: BLDG C363, C371, previously or concurrently. Noise control criteria and regulations, instrumentation, noise sources, room acoustics, walls, barriers and enclosures, acoustical materials and structures, vibration and noise control systems for buildings. Lectures: 3 hours per week.

BLDG C474
Building Illumination (3 credits)
Prerequisite: BLDG C363. Production, measurement and control of light, design of lighting systems. Design in respect to daylighting. Integration of lighting systems with mechanical systems. Lectures: 3 hours per week.

BLDG C476
Heat Transfer in Buildings (3 credits)
Prerequisite: ENGR C251, BLDG C363. Steady state heat conduction, convection and radiative heat exchange in the built environment, and transient heat flow in buildings. Lectures: 3 hours per week.

BLDG C481
Architectural Appreciation and Design
(3 credits)
Prerequisite: Completion of 20 courses. Historical and modern architectural theories. Meaning, intentions and formal issues in contemporary design. The influence of technology, energy conservation and environmental constraints on built form. Architecture vs. industrial design. Lectures: 3 hours per week.

BLDG C491
Labour and Industrial Relations in Construction (3 credits)
Prerequisite: CIVI C491. The study of labour legislation with special emphasis on the construction industry, union organization, the theory and practice of negotiations, mediation, contract administration and arbitration. Review of actual contracts, discussion of future trends. Lectures: 3 hours per week.

BLDG C492
Construction Methods (3 credits)
Prerequisite: CIVI C491. Construction methods, sequences and material handling techniques; impact of safety considerations; work method studies; equipment policy, selection and replacement analysis. Lectures: 3 hours per week.

BLDG C493
Legal Issues in Construction (3 credits)
Prerequisite: CIVI C491. Legal concepts and processes applicable to the development of constructed facilities and to the operation of the construction firm. Emphasis on Quebec

law and institutions. Lectures: 3 hours per week.

Civil Engineering

CIVI C231
Geology (2.75 credits)
Basic principles of physical and structural geology, with emphasis on topics related to Civil Engineering, study of minerals, rocks and soil types, load formation, techniques of air photo interpretations and geological maps. Lectures: 2 hours per week. Laboratory: 3 hours per week, alternate weeks.

CIVI C271
Surveying (3 credits)
Elementary operations employed in engineering surveying; use, care and adjustment of instruments; linear and angular measurements; traversing; earthwork calculations; theory of errors; horizontal and vertical curves and curve layout; slope stakes and grades, application of surveying methods to city, and topographic surveying and introduction to advanced surveying techniques; use of digital computers in surveying calculations.
Summer school taken before entering second year of study in the B.Eng. programme. Lectures and Field Work: 8 hours per day; 6 days per week for 3 weeks.

CIVI C321
Engineering Materials (3.75 credits)
Microscopic properties of materials; engineering properties of structural metals; behaviour of wood; production and properties of concrete; bituminous materials, ceramics, plastics; introduction to composite materials. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

CIVI C341
Civil Engineering Systems (3 credits)
Prerequisite: Registration in second year in Civil Engineering programme; EMAT C271; COMP C211 (CEGEP Data Processing 911) or equivalent. Development of concepts and techniques commonly associated with systems engineering which are applicable to design and operation of systems that concern Civil Engineers. Problem formulation, optimization, linear programming, sequencing, routing and scheduling, mathematical expectation, random models and queues. The techniques developed are used to solve problems in transportation, water resources, structures and construction management. Lectures: 3 hours per week.

CIVI C353
Structural Design (4 credits)
Prerequisite: ENGR C341 previously or concurrently. Behaviour and design of steel members: beams, columns, and beam-columns. Riveted, bolted, and welded connections. Behaviour and design of reinforced concrete members. Design of timber members. Lectures: 3 hours per week. Laboratory: 2 hours per week.

CIVI C354
Structural Analysis (4 credits)
Prerequisite: ENGR C341 previously or concurrently. Analysis of statically determinate structures: influence lines, deflections. Analysis of statically indeterminate structures: the method of consistent deformations, the three moment equation, the slope deflection, and the moment distribution methods. Lectures: 3 hours per week. Laboratory: 2 hours per week.

CIVI C372
Transportation Engineering (3 credits)
Prerequisite: Registration in second year of the Civil Engineering programme; CIVI C341. A survey of all transportation modes and introduction to some recent concepts of transportation system planning. Social and economic importance of transportation; essential elements of a transportation system, characteristics of different transportation modes. Lectures: 3 hours per week.

CIVI C381
Water Resources Engineering (3.5 credits)
Prerequisite: ENGR C362, previously or concurrently; EMAT C271. Open channel hydraulics; critical flow, uniform and non-uniform flows; design of erodible and non-erodible channels; flow profile, classification and computation. Practical problems. Lectures: 2 hours per week. Laboratory: 3 hours per week.

CIVI C431
Soil Mechanics (4.5 credits)
Prerequisite: CIVI C321 and completion of 20 courses. Index properties and classification of soils. Weight-volume relationships. Soil structures. Moisture-density relationships. Permeability, deformation and strength of soils. Principle of total and effective stresses. Steady stage seepage through isotropic soil media. Stress distribution due to external loads and analysis of total settlements. Outline of theory of consolidation. Fundamentals of stability of earth retaining walls, slopes and footings. Lectures: 3 hours per week. Laboratory: 3 hours per week.

CIVI C434
Geotechnical Analysis (3 credits)
Prerequisite: EMAT C391. Seepage through anisotropic soils. Linear and nonlinear consolidation theories. Sand drains. Introduction to soil dynamics and rock mechanics; wave propagation in soils and rock; machine foundations. Stress concentration around tunnels opened in rock. Pressure distribution on buried structures. Introduction to numerical techniques as applied to solution of geotechnical problems. Lectures: 3 hours per week.

CIVI C435
Foundation Design (3.75 credits)
Prerequisite: CIVI C354; C431. Loads, bearing capacity and settlement. Lateral pressures. Foundation drainage and waterproofing. Spread footings. Strip footings. Pile foundations. Caissons. Retaining walls. Sheet piling walls. Braced cofferdams. Cellular cofferdams. Anchors. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

CIVI C451
Advanced Structural Analysis (4 credits)
Prerequisite: CIVI C354. Analysis of frames, arches and cable structures; influence lines for statically indeterminate structures; plastic analysis; computer applications. Lectures: 3 hours per week. Laboratory: 2 hours per week.

CIVI C452
Matrix Analysis of Structures (3 credits)
Prerequisite: EMAT C311, CIVI C354. Classical and matrix methods of structural analysis; influence coefficients, transformation matrices. Matrix formulation of the force and of the displacement methods of analysis. Computer applications. Lectures: 3 hours per week.

CIVI C453
Advanced Reinforced Concrete Design (3.5 credits)
Prerequisite: CIVI C353. Design of reinforced concrete slabs, frames, prefabricated structures, girders, and shells; prestressed concrete structures. Lectures: 2 hours per week. Laboratory: 3 hours per week.

CIVI C454
Advanced Steel Structures (3.5 credits)
Prerequisite: CIVI C451. Contemporary methods for analyzing and designing steel structures. Codes. Comprehensive design problems from the fields of steel buildings, bridges of various types, and cable structures. Lectures: 2 hours per week. Laboratory: 3 hours per week.

CIVI C455
Introduction to Structural Dynamics (3 credits)
Prerequisite: EMAT C391, CIVI C354, ENGR C243. Theory of vibration. Dynamic response of simple structural systems. Effects of blast, wind, traffic and machinery vibrations. Basic concepts in earthquake resistant design. Computer applications. Lectures: 3 hours per week.

CIVI C471
Highway Design (4.5 credits)
Prerequisite: CIVI C372. Design controls and criteria including traffic and highway characteristics and capacity. Location and right-of-way. Earthworks. Geometric design of highways and terminals. Pavement design. Highway design project. Lectures: 3 hours per week. Laboratory: 3 hours per week.

CIVI C472
Traffic Engineering (3 credits)
Prerequisite: CIVI C341 and C372. The vehicle, driver, and roadway system, traffic surveys, highway capacity and level of service, statistical distributions of traffic stream measurements, queuing processes, network analysis, surveillance and control concepts. Lectures: 3 hours per week.

CIVI C474
Urban Transportation Planning (3 credits)
Prerequisite: CIVI C341 and C372. The systems approach to transportation planning process, supply and demand functions, travel forecasting models, land-use models, urban data collection and analysis, impact on the environment, evaluation of alternative transportation systems, future transportation technology. Lectures: 3 hours per week.

CIVI C481
Water Supply Systems (3.5 credits)
Prerequisite: CIVI C381. Water use cycle; capacity of water supply systems; sources of raw water; development of surface water and ground water; water quantities and requirements; design of distribution systems; storage; pumping; water quality; introduction to water purification practices. Lectures: 2 hours per week. Laboratory: 3 hours per week.

CIVI C482
Urban Sanitation (3.5 credits)
Prerequisite: CIVI C481. Sources, characteristics and quantities of waste waters; public health considerations; urban hydrology and drainage; design of sewers; introduction to wastewater treatment practices; disposal of wastes, stream pollution and control. Lectures: 2 hours per week. Laboratory: 3 hours per week.

CIVI C483
Hydrology (3.5 credits)
Prerequisite: CIVI C381. Hydrologic principles, precipitation, data collection and interpretation, floods, ground water hydrology. Lectures: 2 hours per week. Laboratory: 3 hours per week.

CIVI C484
Hydraulic Engineering (3.5 credits)
Prerequisite: CIVI C381; C483 previously or concurrently. Outlet works for Reservoirs, Channel Transitions; Elements of River Engineering; Water Resources Project Economics; Design of Water Resources Systems, Application of Probabilistic and Graphic Optimization Techniques to System Design. Lectures: 2 hours per week. Laboratory: 3 hours per week.

CIVI C485
Hydraulic Structures (3.5 credits)
Prerequisite: CIVI C431; C483 previously or concurrently. Analysis of slopes, earth dams, gravity dams, arch dams, spillways, outlet works and marine structures. Lectures: 2 hours per week. Laboratory: 3 hours per week.

CIVI C491
Construction Engineering (3 credits)
Prerequisite: Completion of 20 courses in the Civil Engineering programme. The nature of construction and the environment in which the industry works; contractor objective; organizational structures for project delivery; rudimentary decision analysis; planning, scheduling and control of men, money, machines, materials and methods to control time, cost and content. Lectures: 3 hours per week.

Computer Engineering

COEN C411
Computer Organization & Software (3.75 credits)
Prerequisite: COMP C211 (CEGEP Data Processing 911) or equivalent. Number systems and codes. Logical basis of computer structure; machine organization and functional units; machine programming including subroutines, linkages, macros and assembly systems; compilers and operating systems. Difference between mainframe, mini and microcomputer systems. Lectures: 3 hours per week. Laboratory: 1½ hours per week.

COEN C413
Logic Design I (3.75 credits)
Prerequisite: ELEC C311. Digital design vs. analog design. Boolean algebra and its applications to electrical switching circuits. Analysis, design and optimization of combinational circuits. Transistor gates and their

practical limitations. Modern integrated-circuit logic families such as RTL, DTL, TTL, ECL, MOSL and CMOSL; applications of combinational circuits to electronic systems and instrumentation. Flip-flops and their application. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

COEN C414
Logic Design II (3.75 credits)
Prerequisite: COEN C413. Characterization, analysis, design, and optimization of clock-mode, pulse-mode, and level-mode sequential circuits. Hazards. Read-only and random access memories. Design of counters and registers. Introduction to MSI and LSI components. Application of sequential circuits to electronic systems and instrumentation. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

COEN C416
Design of Digital Computers (3 credits)
Prerequisite: COEN C411, C414. Computer memories, registers and data-path. Register-transfer-level description of digital systems. Design of control and arithmetic units. Inter-system communication, input/output, design of interfaces. Parallelism in computer systems for increased speed of operation. Special computers such as microprocessors. Lectures: 3 hours per week.

COEN C417
Microprocessor Systems (4.5 credits)
Prerequisite: COEN C411, C414 previously or concurrently. Introduction to microprocessor architecture. Instruction set, addressing mode, and programming techniques. I/O systems, memories and interfacing. Developmental systems. Engineering applications. Lectures: 3 hours per week. Laboratory: 3 hours per week.

COEN C474
Digital Computers in Systems (3.75 credits)
Prerequisite: COEN C411 or COMP C322; ENGR C372. Application of digital computers to data acquisition and control systems; coding and data transmission; types of I/O and instrumentation for real-time applications. Design of real-time systems; the role of a real-time executive. Simulation of discrete-time systems. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

Electrical Engineering

ELEC C251
Fundamentals of Electrical Engineering (3 credits)
Prerequisite: ENGR C273, EMAT C232 previously or concurrently. Electric charge, Coulomb's Law, electrostatic forces, electric field, Gauss' Law, electric potential, stored energy. Dielectrics, properties of materials in electric fields. Electric current, conduction in a vacuum and in material media, displacement current, magnetic field of a current, force on a current-carrying wire, magnetic induction, electromotive force, energy stored in a magnetic field. Magnetism in material media, magnetic circuits. Time varying fields. Capacitance, resistance, inductance, elements of electric circuits. Lectures: 3 hours per week. Tutorial: 1 hour per week.

ELEC C311
Electronics I (4.5 credits)
Prerequisite: ENGR C274. Semiconductor diodes, rectifiers, and wave form-shaping circuits. Zener, varactor and tunnel diodes. Voltage and current amplifiers. Characteristics and operation of field-effect and bipolar transistors. Biasing techniques and thermal runaway. Field-effect and bipolar transistor amplifiers. Lectures: 3 hours per week. Laboratory: 3 hours per week.

ELEC C312
Electronics II (4.5 credits)
Prerequisite: ELEC C311, C341. Multistage transistor amplifiers. Small-signal analysis. Differential and power amplifiers. Operational amplifiers and their applications. High-frequency modeling of transistors. Frequency response of amplifiers. Oscillator circuits. Lectures: 3 hours per week. Laboratory: 3 hours per week.

ELEC C316
Fundamentals of Discrete Structures (2 credits)
Prerequisite: COMP C211 (CEGEP Data Processing 911) or equivalent; EMAT C232. Set algebra; mappings and relations. Algebraic structures; semigroups and groups. Elements of the theory of undirected and directed graphs. Lectures: 2 hours per week.
NOTE: Students with credit for COMP C231 may not take this course for credit.

ELEC C318
Industrial Electronics (4.5 credits)
Prerequisite: ENGR C274. A survey of electronic components and systems used in industry. Analog devices; the transistor, the operational amplifier and their models. Amplifiers. Digital devices: gates, logic devices. Large scale integrated circuits, microcomputers. Lectures: 3 hours per week. Laboratory: 3 hours per week.

ELEC C321
Electrical Properties of Materials (3.75 credits)
Prerequisite: ELEC C251. Structure of crystals. Electrical, magnetic, dielectric and optical characteristics and their measurements. Energy levels, localized states, and transport properties of solids. Recent device applications of metals, semi-metals, semiconductors, semi-insulators and insulators. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C331
Electromechanics (4.5 credits)
Prerequisite: ELEC C251; ENGR C274 previously or concurrently. Three-phase circuits. Power transformers. Energy in singly and doubly excited systems; principles of electromechanical energy conversion. Basic features and models of d.c. machines, 3-phase induction machines, 3-phase synchronous machines. Lectures: 3 hours per week. Laboratory: 3 hours per week.

ELEC C333
Electric Machines (3.75 credits)
Prerequisite: ELEC C331. Air gap field distribution, windings, harmonic content of induced voltages in rotating machines. Magnetic core calculations. Direct current machines,

single-phase and three-phase induction motors, three-phase synchronous motors, selsyns, linear motors. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C334
Electric Machinery (3.75 credits)
Prerequisite: ENGR C274. Three-phase circuits. Magnetic fields, circuits and forces; transformers; basic features of rotating machines; models, characteristics and applications of d.c. machines, polyphase synchronous and induction machines. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.
NOTE: Students in Electrical Engineering may not take this course for credit.

ELEC C341
Linear Network Analysis (3 credits)
Prerequisite: EMAT C312 previously or concurrently; ENGR C274. The s-plane and system functions. Network topology and equilibrium equations. One and two port networks. Indefinite admittance matrix and applications. Introduction to transmission lines. Response to singularity functions. Transient response of networks and lines. Lectures: 3 hours per week.

ELEC C351
Electromagnetic Field Theory (3 credits)
Prerequisite: EMAT C232 and C252, ELEC C251. The field concept. Maxwell's equations. Boundary conditions. Power and energy. The electrostatic field. Electrostatic potential. The concept of capacitance. Conformal mapping in electrostatics. Polarization. The concept of local field in matter. The magnetostatic field. The Biot-Savart law. The scalar magnetic potential. Plane waves. Total internal reflection. The Brewster angle. Lectures: 3 hours per week. Tutorial: 3 hours per week, alternate weeks.

ELEC C401
Electrical Engineering Seminar (1 credit)
Prerequisite: Completion of 17 courses. Near the end of their programme, students in Electrical Engineering hold meetings with faculty members. These meetings are organized to provide the student with an opportunity to exercise his ability to present and to defend his thoughts on topics of his own choice. Students will be encouraged to devote some of their discussions to such topics as continuing professional education, professional societies, organization of engineering employment, and professional ethics. Seminars: 2 hours per week.

ELEC C411
Pulse Circuits (4.5 credits)
Prerequisite: EMAT C312, ELEC C312. Large signal analysis of diodes and transistors. Wave-shaping circuits. Function generation. Design of gates and their practical limitations. Negative resistance devices in pulse generation. Lectures: 3 hours per week. Laboratory: 3 hours per week.

ELEC C415
Electronics III (4.5 credits)
Prerequisite: ELEC C312. Linear and nonlinear operational amplifier circuits such as stable-gain differential amplifiers, negative-impedance converters, gyrators, logarithmic amplifiers, precision rectifiers, voltage regulators, etc. Analog-to-digital and digital-to-analog converters. Computer-aided analysis of electronic circuits. Lectures: 3 hours per week. Laboratory: 3 hours per week.

ELEC C421
Solid State Devices (3.75 credits)
Prerequisite: ELEC C321. Physics of solid state devices. Basic semiconductor and physical mechanisms. The electronics of p-n junctions, of bipolar, junction and MOS Field Effect transistors. Planar silicon diodes will be designed, fabricated and evaluated in the laboratory. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C422
Integrated Circuit Design (4.5 credits)
Prerequisite: ELEC C421. The structure, characteristics and design of I.C. device components. Fabrication of I.C.'s: mask layout, interconnections, performances, reliability and yield of production. Competitive I.C. technologies. A planar bipolar transistor will be designed, fabricated and evaluated in the laboratory. Lectures: 3 hours per week. Laboratory: 3 hours per week.

ELEC C431
Electrical Power Systems (3.75 credits)
Prerequisite: ELEC C331. Inductance, capacitance, resistance of polyphase transmission lines; current and voltage relations of transmission lines; load flow studies; symmetrical and unsymmetrical faults; power system stability. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C433
Static Power Converters (3.75 credits)
Prerequisite: ENGR C372; ELEC C311 and C331. Circuits and operating principles of phase-controlled converters; external performance characteristics; harmonic content of d.c. output voltage and a.c. input current; dual converters; converters as power amplifiers. Application to variable speed drives; d.c. machine dynamics, feedback control. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C441
Modern Filter Design (3.75 credits)
Prerequisite: ELEC C341. Image parameters, constant-k and m-derived filters. The approximation problem. Design of Butterworth, Tchebyscheff, and Bessel filters as terminated lossless networks. Design of constant-resistance all-pass networks. Design of active-RC, filters using operational amplifiers. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C442
Digital Filters (3 credits)
Prerequisite: ELEC C341. Introduction to recursive and non-recursive digital filters; the z-transform; realization methods; amplitude and phase characteristics and relevant approximations and transformations; comparison of digital with conventional filters; application of digital filters. Lectures: 3 hours per week.

ELEC C453
Microwaves and Optics: Transmission (3.75 credits)
Prerequisite: EMAT C312, ELEC C341 and C351. Plane waves, surface waves, wave impedance, surface impedance. Two-wire, coaxial and parallel-plate transmission lines. Waveguide modes, cutoff frequency, disper-

sion, losses. Dielectric optical waveguides, surface waveguides, microstrip. Principles of light transmission optics. Basic antenna theory, linear dipole, aperture antennas, diffraction, linear arrays. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C454
Microwaves and Optics: Circuits
(3.75 credits)
Prerequisite: ELEC C453. Circuit theory for waveguiding systems, waveguide discontinuities. Binomial and Chebyshev impedance transformer design. Electromagnetic resonators, the Fabry-Perot resonator. Periodic structures, microwave filters. Faraday rotation and ferrite devices. E.M. wave propagation in optically active media, electro-optic devices. Principles of microwave tubes. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C455
Acoustics (3 credits)
Prerequisite: ELEC C351. Sound generation and propagation in elastic media; conversion between acoustical, electrical, and mechanical energy. Lumped-parameter approximations, sound in rooms, underwater acoustics, microphones; loudspeakers and audio communications problems; noise and vibration control problems. Lectures: 3 hours per week.

ELEC C461
Communication Circuits and Systems
(3.75 credits)
Prerequisite: EMAT C312; ELEC C312. Principles of amplitude, frequency and phase modulation. Modulators, mixers, and demodulators. Representative examples of complete transmission systems. Qualitative treatment of modulation systems in the presence of noise. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C462
Statistical and Digital Communications
(3.75 credits)
Prerequisite: EMAT C271; ELEC C461. Transmission and filtering of random signals, analysis of modulation systems, in particular Pulse Code Modulation, Phase Shift Keying, Frequency Shift Keying, etc., and introduction to noise analysis, information theory and coding. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

ELEC C481
Electrical Engineering Project (4 credits)
Prerequisite: Registration in final year. The Electrical Engineering project provides an opportunity for each student to carry out a design project associated with one or more of the specialist elective courses, under the supervision of a faculty member. The nature of the project selected should be such as to require independent study of current technical literature. When feasible the designs will be assessed in the laboratory. Each student is to present a complete report at the end of the project. Equivalent laboratory time: 6 hours per week.

ELEC C482
Topics in Electrical Engineering (3 credits)
Prerequisite: Permission of the Department. This course may be offered in a given year upon the authorization of the Electrical Engineering Department. The course content may vary from offering to offering and will be chosen to complement the elective courses available in a given option or options. Lectures: 3 hours per week.

Industrial Engineering

INDU C310
Human Factor Engineering (3 credits)
This course treats the anatomical and physiological factors underlying design of man-machine interfaces; the psychological factors involved in the allocation of function between man and machines in an over-all system, for example, information processing capacity, acquisition and retention of skill, adaptability and the effects of stress. Lectures: 3 hours per week.

INDU C313
Industrial Economics (3 credits)
Prerequisite: ACCO C213. Development of economic performance measures. Sources of finance and the cost of money. Consideration of: life cycle costing, economic risk, tax regulations, inflation, short and long term forecasting techniques, model building, cost indices, elemental estimating, computerized information systems. Lectures: 3 hours per week.
NOTE: Students having completed BLDG C401 may not take this course for credit.

INDU C320
Production Engineering I (3 credits)
The systems approach to production; interrelationships among the component blocks of the system, including capacity planning, plant location, layout of physical facilities, maintenance. Lectures: 3 hours per week.

INDU C321
Production Engineering II (3 credits)
Prerequisite: INDU C320. A continuation of Production Engineering I, with emphasis on the design of the control systems for the production facility. Topics include allocation of resources, scheduling work methods and measurement, materials handling, process control and quality control. Lectures: 3 hours per week.

INDU C323
Industrial Operations Research (3 credits)
Prerequisite: CEGEP Data Processing 911 or equivalent. An introduction to the application of mathematical models to various industrial problems; queuing theory, game theory linear programming, inventory theory and Monte Carlo processes. Lectures: 3 hours per week.
NOTE: Students with credit for ENGR C412 may not take this course for credit.

INDU C330
Organizational Management (3 credits)
Organizational structures, their growth and change. Motivation, leadership and group behaviour. Design of alternatives for improving organizational performance and effectiveness. Lectures: 3 hours per week.

INDU C410
Safety Engineering (3 credits)
Prerequisite: INDU C310. The design of plant layout and work stations in order to provide a safe work environment. Safety features for machines. Industrial training methods. Accident prevention programmes. Cost of industrial accidents. Lectures: 3 hours per week. Tutorial: 2 hours per week.

INDU C411
Industrial Applications of Computers (3 credits)
Prerequisite: ELEC C318. Characteristics of computing systems from large scale machines to microcomputers. Applications of large machines including management information systems, inventory and production control. Determination of computing needs vis a vis the size of the machine used. Use of microcomputers as control elements in production systems. Automation. Future trends. Lectures: 3 hours per week.

INDU C420
Mathematics of Optimization (3 credits)
Prerequisite: INDU C323, C321. Optimization techniques for industrial engineering. Considered are: advanced topics in linear programming, separable programming, nonlinear programming, multiplier theory. Applications to production, and inventory scheduling. Lectures: 3 hours per week. Tutorial: 1 hour per week.

INDU C423
Inventory Control (3 credits)
Prerequisite: INDU C321, C323. The basic features of production systems and methods of modelling their operation; materials requirement planning; inventory control; the role of inventories in physical distribution; inventories in manufacturing, aggregate planning and scheduling. lectures: 3 hours per week.

INDU C480
Industrial Engineering Project (4 credits)
Prerequisite: Completion of 20 courses. Co-requisite: INDU C481. Students will be assigned, as individuals or as small groups, specific industrial engineering projects. It is expected that these projects will be drawn from local industry and will thus reflect actual problems faced by industry. The project report will be prepared under the supervision of a staff member. Lectures: 1 hour per week, 1 term. Laboratory: 3 hours per week, 2 terms.

INDU C481
Industrial Engineering Seminar (1 credit)
Co-requisite: INDU C480. Students are given the opportunity to make oral presentations of the work carried out for their project. These presentations will be video-taped and used as a teaching tool to improve verbal communication abilities. Laboratory: 2 hours per week.

Mechanical Engineering

MECH C311
Mechanical Engineering Laboratory I (3 credits)
Prerequisite: MECH C312 previously or concurrently. Fundamentals of manufacturing processes and their limitations, metrology, machine shop practice, forming, machining and casting processes, welding and joining, plastic production and non-conventional machining techniques. Laboratory includes use of basic machines, preparation of shop drawings with emphasis on production and field trips to local industries. Lectures: 2 hours per week. Tutorial: 1 hour per week. Laboratory: 2 hours per week.

MECH C312
Mechanical Engineering Design I (3 credits)
Prerequisite: ENGR C213; COMP C211 or equivalent. Introduction to engineering design procedures through the use of open-ended design projects. Lecture topics will include engineering design process, consideration of alternatives, specifications, pencil thinking, principle of design synthesis, dimensioning for manufacture and interchangeability, quality control, presentation of engineering data and calculations; application of computer graphics in design. Lectures: 2 hours per week. Laboratory: 2 hours per week.

MECH C321
Strength and Failure in Metals (3 credits)
Prerequisite: ENGR C221. The service capabilities of alloys and their relationship to microstructure as produced by thermal and mechanical treatments; material codes; material selection for design; strengthening mechanisms, composite materials. Modes of failure of materials; fracture, fatigue, wear, creep, corrosion, radiation damage. Lectures: 3 hours per week. Tutorial: 1 hour per week.

MECH C341
Kinematics of Mechanisms (2.5 credits)
Prerequisite: EMAT C232; ENGR C243. Geometry of motion and mobility criteria; kinematic analysis and synthesis of linkages; theory of spur gears, helical, worm and bevel gearing; gear trains and differentials; cam kinematics. Lectures: 2 hours per week. Tutorial: 2 hours per week, alternate weeks. Laboratory: 2 hours per week, alternate weeks.

MECH C342
Dynamics of Machines (2.5 credits)
Prerequisite: MECH C341. Kinematic analysis of space mechanisms; static and dynamic analysis of planar mechanisms and gear trains; dynamic analysis of space mechanisms; gyroscopic forces; balancing of rating and reciprocating machinery. Lectures: 2 hours per week. Tutorial: 2 hours per week, alternate weeks. Laboratory: 2 hours per week, alternate weeks.

MECH C351
Thermodynamics II (3.75 credits)
Prerequisite: ENGR C251. Thermodynamic functions and equation, relationships between properties; behaviour of gases and their non-reactive mixtures; combustion. Applications of thermodynamics to power production and utilization systems. Lectures: 3 hours per week. Tutorial: 1 hour per week. Laboratory: 3 hours per week, alternate weeks.

MECH C352
Heat Transfer I (3.75 credits)
Prerequisite: EMAT C311. Steady state and transient heat conduction, numerical methods for two-dimensional steady state heat conduction. Radiation heat exchange between black bodies, between grey bodies and from gases, vapours and flames. Lectures: 3 hours

per week. Laboratory: 3 hours per week, alternate weeks.

MECH C373
Instrumentation and Measurements (3.75 credits)

Prerequisite: ENGR C274. Unified treatment of measurement of physical quantities. Principle, characteristics, design and calibration of components and systems for measuring position, velocity, acceleration, force pressure, flowrate, temperature, proximity detection, etc. Background knowledge of electronics covering signal generation and processing. Concepts of accuracy and repeatability, linearity, response criteria, bandwidth, input and output impedance, matching of measuring systems, drift and bias. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

MECH C411
Mechanical Engineering Laboratory II (3 credits)

Prerequisite: MECH C311. Analytical review of current design practices and specification of standard components encountered in mechanical engineering. Introduction to overall system reliability estimates, interchangeability of mechanical devices and influence of stress-strength in determining the actual configuration of mechanical elements. Standard components covered include: various types of mechanical drives, cams, clutches, couplings, brakes, seals, fasteners, springs and bearings. Lectures: 2 hours per week. Tutorial: 1 hour per week. Laboratory: 2 hours per week.

MECH C421
Deformation and Mechanical Shaping of Metals (3.75 credits)

Prerequisite: ENGR C221. The mechanisms of deformation and softening and the effects of processing variables on the mechanical properties of metals; cold working, annealing and hot working of metals. The effects of mechanical parameters and materials properties on the processing and on the product. Mechanical forming; shear line theory, extruding, forging, rolling, drawing. Metal cutting; machineability, metrology. Powder technology. Shaping of plastics; extrusion, molding, vacuum, forming, lamination. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

MECH C423
Thermal Treatment and Processing of Metals (4 credits)

Prerequisite: ENGR C221. Science and technology of thermal treatments for controlling the internal structure and the external shape of metals. Equilibrium phase diagrams. Kinetics of phase transformations, diffusion. Thermomechanical treatments of steel. Precipitation hardening. Solidification. Casting. Welding. Non-destructive testing. Finishing processes. Lectures: 3 hours per week. Tutorial: 1 hour per week. Laboratory: 2 hours per week.

MECH C441
Mechanical Engineering Design II (3 credits)

Prerequisite: ENGR C244; MECH C312 and C342. Concepts in design; failure of mechanical elements under dynamic loading; shafting; bolted and welded joints; anti-friction and journal bearings; design of gears. Lectures: 2 hours per week. Laboratory: 2 hours per week.

MECH C443
Mechanical Vibrations (3.75 credits)

Prerequisite: EMAT C311; ENGR C274; MECH C342. Transient vibrations under impulsive shock, and arbitrary excitation: normal modes, free and forced vibration. Multi-degree of freedom systems, influence coefficients, orthogonality principle, numerical methods. Continuous systems; longitudinal torsional and flexural free and forced vibrations of prismatic bars. Lagrange's equations. Vibration measurements. Lectures: 3 hours per week. Tutorial: 1 hour per week. Laboratory: 3 hours per week, alternate weeks.

MECH C445
Machine Design (3.5 credits)

Prerequisite: MECH C441. Design of springs; design of gear and hydraulic drives, design for hydrodynamics and hydrostatic lubrication; optimum design of mechanical systems, design strategy, value and merit function, maximizing and minimizing procedures. Laboratory work includes an advanced design project representative of those encountered in industry. Lectures: 2 hours per week. Laboratory: 3 hours per week.

MECH C452
Heat Transfer II (3.75 credits)

Prerequisite: ENGR C362; MECH C352. Review of momentum transfer, free and forced convection heat transfer, dimensional analysis as applied to convection heat transfer configurations, heat exchangers, introduction to mass transfer. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

MECH C453
Environmental Control (3 credits)

Prerequisite: MECH C352. The effect of air temperature and humidity on physiological comfort, overall heat-transmission coefficients across building sections, heating load calculations, the effect of solar radiation on air-conditioning load, cooling load calculations, heating, air-conditioning and ventilating systems, design of piping and duct arrangement. Lectures: 3 hours per week.

MECH C455
Introduction to Nuclear Engineering (3 credits)

Prerequisite: MECH C351 and C352. Nuclear engineering principles. Nuclear reactions and reactors; control, heat removal and safety. Processing and properties of reactor fuels, moderators and coolants. Types of power reactors; radiation safety and protection. Lectures: 3 hours per week.

MECH C461
Gas Dynamics (3.75 credits)

Prerequisite: ENGR C362; MECH C351. Review of one-dimensional compressible flow. Normal and oblique shock waves; Prandtl-Meyer flow; combined effects in one-dimensional flow; non-ideal gas effects; multi-dimensional flow; linearized flow; method of characteristics. Selected experiments in supersonic flow, convergent-divergent nozzles, hydraulic analogue and Fanno tube. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

MECH C462
Turbomachinery and Propulsion (3 credits)

Prerequisite: ENGR C362. Overview of the gas turbine and its applications. Review of

Brayton cycle and cycle modifications. Components arrangement, gas turbine cycles for propulsion. The Euler turbine equation, velocity triangles, dimensional analysis of turbomachines. Two-dimensional cascades. Centrifugal compressors and radial turbines. Axial flow compressors and turbines. Three-dimensional flow effects and radial equilibrium. Prediction of performance and off-design operation. Lectures: 3 hours per week.

MECH C463
Fluid Power Control (3.75 credits)
Prerequisite: ENGR C361 and C372. Introduction to Fluid Power; pneumatic devices; fluidic devices; hydraulic system components; hydraulic and electro-hydraulic systems; dynamic performance of fluid power systems; fluid logic. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

MECH C464
Aerodynamics (3 credits)
Prerequisite: MECH C461. Theory of potential flow fields. Flows over immersed bodies, superposition of basic flows, method of source panels. Aerodynamic characteristics of isolated airfoils and of cascades of airfoils. The finite wing. Analytical and computational methods of subsonic and transonic flows over air foils. Boundary layer effects and control. Lectures: 3 hours per week.

MECH C465
Gas Turbine Design (3.75 credits)
Prerequisite: MECH C462. Co-requisite: MECH C464. Study of practical criteria which influence the design of a gas turbine engine including relevant mechanical and aerodynamic constraints. The aerodynamics of each of the three major components of a modern turbo-fan engine, namely the compressor, the combustor and the turbine is considered. Air system acoustics, engine aerodynamic matching of components, and modern performance testing methods. A design project is assigned for each of these components. Lectures: 3 hours per week. Laboratory: 3 hours per week, alternate weeks.

MECH C471
Microprocessors and Applications
(3 credits)
Prerequisite: COEN C411. Introduction to the concepts and practices of using microprocessors and micro-computers in such applications as instrumentation, manufacturing, control and automation; architecture and programming techniques; design of interface logic circuits: I/O systems; case studies of engineering applications. Lectures: 3 hours per week.

MECH C481
Design of Experimental Project (3 credits)
Prerequisite: Registration in final year. A mechanical engineering design, simulation or experimental project appropriate to the senior level carried out under the supervision of a faculty member. A complete report is required at the end of the project. Equivalent laboratory time: 6 hours per week.

71.80 Department of Computer Science

Professor of Computer Science, and Chairman of the Department
C.Y. SUEN

Professor
J. MCKAY

Associate Professors
V.S. ALAGAR
J.W. ATWOOD
T.D. BUI
R. DE MORI
E.J. DOEDEL
T. FANCOTT
W.M. JAWORSKI
S.L. KLASA
C. LAM
G. MARTIN
T. RADHAKRISHNAN
R. SHINGHAL

Assistant Professors
H.J. BOOM
C.K.S. CHONG HOK YUEN
B.C. DESAI
P. GOYAL
J. OPATRNY
D.K. PROBST
E. REGENER

Adjunct Associate Professors
R. HAY
M.A. MARIN

Adjunct Assistant Professor
H.T. LAU

71.80.1 CURRICULUM FOR THE DEGREE OF BACHELOR OF COMPUTER SCIENCE

The University offers a programme leading to the degree of Bachelor of Computer Science with four Options, namely General Science, Digital Systems, General Business and Mathematics. To be recommended for the degree of Bachelor of Computer Science, students must satisfactorily complete an approved programme of at least 90 credits, comprising 42 credits of the core requirements and at least 48 credits as specified for one of the four options.

71.80.2 COMPUTER SCIENCE CORE

24 COMP C221^{3}, C231^{3}, C241^{3}, C251^{3}, C322^{3}, C352^{3}, C443^{3}, C453^{3}
3 COMP C361^{3} or EMAT C391^{3} or MATH C311^{3}
15 From Computer Science courses at or above the 300 level, of which not more than 3 credits may be chosen from COMP C311, C321, C341, C351, and C421.

1. General Science Option**

NOTE: Admission profile is 10.10. Please refer to §71.10.1.

42 Computer Science Core
18 MATH C241^{6}, C261^{6}, and C281^{6}
3 Elective credits in Computer Science at the 300 level or above.
21 Elective credits* chosen from
a) those offerings of the Faculty of Arts and Science which are creditable as science credits towards a 90 credit BSc programme.
b) those offerings of the Faculty of Commerce and Administration which are creditable towards a 90 credit BComm or BAdmin degree.
c) those offerings of the Faculty of Engineering and Computer Science other than COMP C211.
d) other courses as authorized by the Assistant Dean, Student Affairs, in consultation with the Department.
6 Elective credits.*

*Certain courses are not creditable towards some 90-credit programmes, or cover certain material already found in the Computer Science or Option Cores. As such they are not recognized as electives. A listing of these exclusions and other information on choice of electives is found in the Faculty programme guide. Exceptions require the approval of the Dean's Office.

**NOTE: For students enrolled in the Science College, requirements are:

42 Computer Science Core
18 MATH C241, C261, C281
30 Science College Core

2. Digital Systems Option

NOTE: Admission profile is 10.10. Please refer to §71.10.1.

42 Computer Science Core
35.5 EMAT C212^{3}, C232^{3}, C252^{3}, C271^{3}, C312^{3},
ENGR C273$^{3.75}$, C274$^{3.75}$,
ELEC C311$^{4.50}$
COMP C325^{4}, C426$^{4.50}$
12 Chosen from ENGR C372$^{3.75}$, C471^{4}, ELEC C312$^{4.50}$, C341^{3}, C411$^{4.50}$ C441$^{3.75}$, C442^{3}, C461$^{3.75}$, C462$^{3.75}$, COEN C474$^{3.75}$
COMP C442^{3}, C423$^{4.50}$, C427^{4}, C475^{3}
6 Elective credits from any department.*

*Certain courses are not creditable towards some 90-credit programmes or cover certain material already found in the Computer Science or Option Cores. As such they are not recognized as electives. A listing of these exclusions and other information on the choice of electives is found in the Faculty

programme guide. Exceptions require the approval of the Dean's Office.

3. General Business Option

NOTE: Admission profile is 10.4. Please refer to §71.10.1.

42 Computer Science Core
6 ACCO C213; C218
6 ECON C201; C203
3 FINA C314
3 MANA C266
3 MARK C213
9 QUAN C243; C244; C313
9 Elective credits from Commerce and Administration*
9 Elective credits from any department**

*Students would normally register for FINA C315, MANA C213 or C340, and MARK C350. Students exempt from MANA C213 would normally substitute MANA C340. Other choices must be approved by the Computer Science department.

**Certain courses are not creditable towards some 90-credit programmes or cover certain material already found in the Computer Science or Option Cores. As such they are not recognized as electives. A listing of these exclusions and other information on the choice of electives is found in the Faculty programme guide. Exceptions require the approval of the Dean's Office.

4. Mathematics Option

NOTE: Admission profile is 10.10. Please refer to §71.10.1.

42 Computer Science Core
18 MATH C241[6], C261[6], C281[6]
3 Elective credits in Computer Science at the 300 level or above
9 credits in Mathematics chosen from one of the lists below
6 credits in Mathematics chosen from courses at the 300 level or above
6 elective credits* chosen from

a) those offerings of the Faculty of Arts and Science which are creditable as science credits towards a 90-credit BSc programme.
b) those offerings of the Faculty of Commerce and Administration which are creditable towards a 90-credit BComm or BAdmin degree.
c) those offerings of the Faculty of Engineering and Computer Science other than COMP C211.
d) other courses as authorized by the Assistant Dean, Student Affairs, in consultation with the Department.

6 elective credits*

*Certain courses are not creditable towards some 90-credit programmes or cover certain material already found in the Computer Science or Option Cores. As such they are not recognized as electives. A listing of these exclusions and other information on the choice of electives is found in the Faculty programme guide. Exceptions require the approval of the Dean's Office.

List 1 Discrete Mathematics: MATH C322, C381, C392, C393, C394, C432, C491, C492.
List 2 Numerical Methods and Operations Research: MATH C312, C331, C381, C431, C432, C435.
List 3 Probability and Statistics: MATH C342, C343, C344[6], C345[6], C351, C353, C451.

71.80.3 HONOURS PROGRAMME

Students should refer to Sections 16.2.4 and 16.2.5 of the calendar for academic regulations for the Honours Programme. In addition the following regulations apply to the BCompSc programme.

1. Students who are required to withdraw from the honours programme must enter the General Science Option.
2. Students entering the honours programme from the General Science option of the BCompSc must complete a minimum of 30 credits towards the degree after having been accepted as honours students. Other students entering the programme with advanced standing must complete a minimum of 30 credits of the basic honours requirements after having been accepted as honours students.
3. Students in the honours programme are required to confirm their standing with the Computer Science Department by November 15 of each year.

Requirements for Honours

Basic Requirements
Year I
12 COMP C221[3], C231[3], C241[3], C251[3]
18 MATH C241[6], C261[6], C281[6]
Years II and III
18 COMP C322[3], C352[3], C443[3], C453[3], C491[6]
3 chosen from COMP C361[3], MATH C311[3]
6 MATH C271[3], C351[3]
3 chosen from COMP C325[4], C423[4.50]
3 chosen from COMP C436[3], C465[3]
3 chosen from COMP C442[3], C441[3], C445[3]
3 chosen from COMP C455[3.75], C456[3]
3 chosen from COMP C426[4.50], C471[3.75], C475[3]
6 chosen from MATH C331[6], C342[3], C343[3], C344[6], C345[6], C432[3]

Courses outside the basic requirements:

6 Elective credits* chosen from

a) those offerings of the Faculty of Arts and Science which are creditable as science credits towards a 90-credit BSc programme.
b) those offerings of the Faculty of Commerce and Administration which are creditable towards a 90-credit BComm or BAdmin degree.
c) those offerings of the Faculty of Engineering and Computer Science other than COMP C211.
d) other courses as authorized by the Assistant Dean, Student Affairs, in consultation with the Department.

6 elective credits*

*Certain courses are not creditable towards some 90-credit programmes, or cover certain material already found in the Computer Science or Option Cores. As such they are not recognized as electives. A listing of these exclusions and other information on the choice of electives is found in the Faculty programme guide. Exceptions require the approval of the Dean's Office.

71.80.4 MINOR IN COMPUTER SCIENCE

This programme is offered on both campuses.

Minor in Computer Science

12	COMP C211, C221 or C321, C231, C241
12	Computer Science electives.

71.80.5 PROGRAMMES IN DATA PROCESSING

Both major and minor programmes in Data Processing can be found in the Commerce and Administration Section of the Undergraduate Calendar, §61.

71.80.6 COURSE DESCRIPTIONS

COMP C211
Introduction to Computers and Computing
(3 credits)

An introduction to the essential features of computers and computing systems. Problem analysis, algorithms and flowcharts. Detailed specifications of the FORTRAN language. This course will include programming assignments, to be prepared, tested, and documented individually. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C217
Computers in Society (3 credits)

An introductory course for Arts students with no previous experience of computers. It covers the history of computers, the component parts of a computer, how human beings and computers pass information to each other, and what computers can (and cannot) be used for in the fields of education, research, business, medicine, art, government and the humanities. The effect of computers on society and the individual. Available as an elective for all students, but may not be taken for additional credit by students who already have credit for COMP C211, QUAN C211 or C217. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C221
Introduction to Assembly Language Programming (3 credits)

Prerequisite: COMP C211 (CEGEP 420-911) or equivalent. Computer structure, machine language, instruction execution, addressing techniques and digital representation of data, symbolic coding and assembly systems; macro definition and generation. Linking and Loading. Systems and utility programmes; programming techniques. Introduction to the facilities provided by operating systems. Lectures: 3 hours per week. Tutorial I½ hours per week.

COMP C231
Introduction to Discrete Structures
(3 credits)

Prerequisite: COMP C211 (CEGEP 420-911) or equivalent, MATH C202 (CEGEP 201-101), MATH C203 (CEGEP 201-103). Introduction to a high level programming language and fundamental algebraic, logical and combinatoric concepts such as: Set algebra; mappings and relations. Algebraic structures; semi-groups and groups. Elements of the theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

NOTE: Students with credit for ELEC C316 may not take this course for credit.

COMP C241
Computer Languages and Programming
(3 credits)

Prerequisite: COMP C211 (CEGEP 420-911) or equivalent; MATH C205 (CEGEP Mathematics 203); COMP C231 or ELEC C316. Precision programming by use of structured programming techniques. Definitions and specifications of syntax and semantics of programming languages. Use of high-level languages with examples chosen from discrete structures. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C251
Introduction to Business Programming
(3 credits)

Prerequisite: COMP C211 (CEGEP 420-911) or equivalent, or QUAN C223. Introduction to business data processing. Basic file organization and handling, record layouts, elementary information storage and retrieval. Detailed specifications of the Common Business Oriented Language (COBOL). Structured programming concepts will be emphasized. This course will include programming assignments involving basic business applications, to be prepared, tested and documented individually. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C311
Advanced FORTRAN Programming
(3 credits)

Prerequisite: COMP C211 (CEGEP 420-911). Discussion of concepts in advanced FORTRAN programming, using examples from numerical analysis. Topics to be covered will include: double precision, complex, and Boolean arithmetic, character-string manipulation; object time FORMAT; use of mass storage devices; file handling; use of software packages such as IMSLIB, SSP; introduction to structured programming and structured FORTRAN. Lectures: 3 hours per week.

COMP C321
Assembler Language Programming
(3 credits)

Prerequisite: COMP C221, COMP C251 or C311. Review of the basic concept of IBM 360/370 architecture and instruction repertoire. Memory access and storage. Detailed flowcharting of problems. Rules for coding assembler language programmes, including use of base registers, programme linking and sectioning and the use of macro instruction. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C322
Computer Organization (3 credits)

Prerequisite: COMP C221 or C321, C311 or C241, or equivalent. Organization logic design and components of a digital computer. Data representation and transfer. Digital Arithmetic. Digital storage and accessing. The arith-

metic logic unit, control section and timing. Input-output devices and channels. System organization. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C325
Fundamentals of Digital Design (4 credits)
Prerequisite: COMP C211 (CEGEP Data Processing 911) or equivalent, and COMP C231, or permission of the Department. Review of binary arithmetic and Boolean algebra as applied to logic design. Combinational logic design techniques, sequential circuit design and analysis. Circuit design using SSI and MSI elements. Introduction to digital systems. Lectures: 3 hours per week. Laboratory: 2 hours per week.

COMP C335
Formal Language and Syntactic Analysis (3 credits)
Prerequisite: COMP C241. Definitions of formal grammars. Context-free and regular grammars, relation with automata. Property grammars. Transduction grammars. Lexical scanners, algorithms for syntactic analysis. Lectures: 3 hours per week.
NOTE: Students with credit for COMP C435 may not take this course for credit.

COMP C341
PL/1 Programming (3 credits)
Prerequisite: COMP C241 or C251 or C311. Study of the basic rules and important features of the PL/1 language. This will be integrated with the solution of a variety of practical computer programming problems, both scientific and commercial. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C351
Advanced Cobol Programming (3 credits)
Prerequisite: COMP C251. Review of basic COBOL programming principles and techniques. Interfacing with the operating system; job control language. Advanced topics to be covered include: sorting, table handling, indexing and searching; report writing; direct access file handling and updating; subprogrammes; declaratives; source libraries; segmentation; design and structured programming will be emphasized. This course will include programming assignments. Lectures: 3 hours per week.

COMP C352
Data Structures (3 credits)
Prerequisite: COMP C241 and C251, or permission of the Department. A detailed study of the basic data structures commonly used in data processing; techniques for data manipulation in structures such as stacks, queues, linked lists and trees; the management of memory space and overflow; internal sorting, external sorting and hash table methods. Emphasis will be on the design, implementation and evaluation of the various methods and the best choices of data structures for different applications. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C361
Elementary Numerical Methods (3 credits)
Prerequisite: MATH C204 (CEGEP 201-105), COMP C241. Error analysis and Computer arithmetic. Numerical methods for solving linear systems, Gaussian elimination, LU decomposition. Numerical solution of nonlinear equations, fixed point iterations, rate of convergence. Interpolations and approximations, Lagrange polynomials, divided differences, discrete least-square approximation, Legendre polynomials. Numerical integration, Newton-Cotes formulas, Romberg integration. Emphasis will be on the development of efficient algorithms.

COMP C362
Computer Applications of Statistics (3 credits)
Prerequisite: COMP C211 and one statistics course. This course is designed to familiarize the student with the application of computers to statistical problems. Computer terminals and batch processing of Fortran programmes are used to develop a working knowledge of standard programmes for control charts, analysis of experimental design, sampling plans, forecasting, and statistical analysis common to many other fields. Students are expected to be familiar with elementary statistics and to be able to programme in Fortran. Lectures: 3 hours per week.

COMP C373
Data Communication and Computer Networks (3 credits)
Prerequisite: COMP C322. The study of remote access to and communications between computers. Network architectures and topology; communication protocols and interfaces, functional layers; transmission facilities including communications equipment, line utilization, switching, and error handling; standard protocols; network interfaces including routing and flow control; point-to-point, broadcasting, and local networks theory and current practice; high-level protocols; reliability and security, encryption. Lectures: 3 hours per week.
NOTE: Students with credit for COMP C372 may not take this course for credit.

COMP C423
Mini-Computer Systems (4.5 credits)
Prerequisite: COMP C322, or permission of the Department. Hardware and software structures relating to mini-computers. Processor architecture, input-output architecture, and operating system components. The laboratory provides hands-on access to mini-computer systems using machine and assembly language programming. Lectures: 3 hours per week. Laboratory: 3 hours per week.
NOTE: Students who have credit for COMP C323 may not take this course for credit.

COMP C426
Microprocessor Systems and Applications (4.5 credits)
Prerequisite: COMP C322 and C325, or permission of the Department. Microprocessor architectures and assembly languages. Standard LSI system components. Interface design using MSI and LSI. Microcomputer system architecture. Microcomputer peripheral devices and functions. Interface control programming. Lectures: 3 hours per week. Laboratory: 3 hours per week.

COMP C427
Advanced Topics in Microprocessor Systems (4 credits)
Prerequisite: COMP C426. State of the art microcomputer architectures. Bit slice microprocessors, advanced LSI interface and controller circuits, multiprocessor systems, systems software. Lectures: 3 hours per week. Laboratory 2 hours per week.

COMP C436
Introduction to the Theory of Automata
(3 credits)
Prerequisite: COMP C335. Description of finite state automata and machines. Regular expressions, Kleene's theorem, minimization. Compatibility, Church's thesis, unsolvability. The syntactic monoid. Lectures: 3 hours per week.

COMP C441
Advanced Programming Languages
(3 credits)
Prerequisite: COMP C352. Concepts of, comparison of, and practice in several of the following programming languages: ALGOL, LISP, PL/1, SIMULA67, and SNOBOL. Lectures: 3 hours per week.

COMP C442
Compiler Design (3 credits)
Prerequisite: COMP C221, C335, C352. Compiler organization and implementation. Programming language constructs, their syntax and semantics. Syntax directed translation, code optimization. Run-time organization of programming languages. Lectures: 3 hours per week.
NOTE: Students with credit for COMP C342 may not take this course for credit.

COMP C443
Computer Operating Systems (3 credits)
Prerequisite: COMP C241; and C322 or COEN C411. Software organization. Translating, linking, loading and executing. Control programmes for batch processing, time-sharing and real-time applications. Accounting. Communication between programme units. Multiprogramming and multiprocessing systems. Addressing techniques, paging and memory management. Control of parallel input-output processing, buffers and interrupt facilities. File systems. Protection. Detailed analysis of a small operating system. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C453
File and Data Bases (3 credits)
Prerequisite: COMP C352. This course is a continuation of COMP C352 covering file structures and data bases. Random, index sequential, inverted, and mutilist file structures; concept of data models, data language, data security and data integrity. The organization, storage, search and retrieval methods of Hierarchical, Network and Relational data models will be discussed. Lectures: 3 hours per week. Tutorial: 1½ hours per week.

COMP C455
Principles of Data Processing (3.75 credits)
Prerequisite: COMP C351 or C352 Study of techniques used in data processing applications. Preparation and handling of data, file organization and design, storage device, characteristics, programming techniques, documentation, interpretation and validity of results. Examples of business systems. Introduction to systems analysis. This course will include the analysis, design and implementation of a computer-oriented business system. Lectures: 3 hours per week. Laboratory: 1½ hours per week.

COMP C456
Information Retrieval (3 credits)
Prerequisite: COMP C352 or equivalent. The basic problems of information retrieval. Document and library data bases. Question logic and processing considerations. Structure of search programmes for batched questions with sequential and inverted files. Practical considerations in system design. Measures of retrieval effectiveness. Lectures: 3 hours per week.

COMP C465
Analysis of Algorithms (3 credits)
Prerequisite: COMP C352 and C361, or permission of the Department. Empirical and theoretical measures of the efficiency of algorithms. A study of good algorithms related to sorting, matrix multiplication, fast Fourier transform, integer and polynomial arithmetic, and graph theory. A survey of hard problem, NP-completeness, and interactable problems. Lectures: 3 hours per week.

COMP C471
Computer Graphics (3.75 credits)
Prerequisite: COMP C322 and C352. Display memory; generation of points, vectors, etc. Interactive versus passive graphics; CRT devices and plotters, analog storage of images. Digitizing and digital storage. Pattern recognition. Data structures and graphics software. The mathematics of three-dimensional transformations; projections. Applications in computer-aided design and instruction. Lectures: 3 hours per week. Laboratory: 1½ hours per week.

COMP C472
Introduction to Artificial Intelligence(3 credits)
Prerequisite: COMP C352 or permission of the Department. Scope of AI. List processing. Heuristic programming: state-space search and problem-reduction strategies. Other topics include: game heuristics; symbolic pattern matching; AI production systems; knowledge representation; natural language processing; study of a large AI system. Lectures: 3 hours per week.

COMP C473
Pattern Recognition(3 credits)
Prerequisite: COMP C352. Optical character recognition; sequential and parallel recognition methods; Bayesian decision procedures; perceptrons; statistical and syntactic approaches; recognition grammars; feature extraction and selection, scene analysis. Lectures: 3 hours per week.

COMP C475
Discrete System Simulation (3 credits)
Prerequisite: COMP C241; MATH C241 or QUAN C244 or EMAT C271. Discrete random variables and their distributions. A comparison of simulation techniques: discrete, continuous and hybrid. Queueing models, analysis of data. Model building. Review of simulation languages. Application to business problems and operations research. Lectures: 3 hours per week.

COMP C490
Computer Science Seminar and Project
(3 credits)
Individual work on a computer science project under the supervision of a faculty member, and a series of seminars dealing with topics of current interest by faculty members, students and industry representatives. At least 60 hours of work must be done on a project approved in advance, including the submission of a technical report. Special arrangements can be made with the Depart-

ment to accept a project carried out by a student employed in a commercial firm.

NOTE: Students who have credit for COMP C491 may not take this course for credit.

NOTE: This course is offered on the Loyola Campus only.

COMP C491
Computer Science Project (6 credits)

Prerequisite: Permission of the Department. The students will work on a major project under the direction of a faculty member, and submit a suitable written report on the work carried out. Students planning to register for this course should consult with the department in the fall term preceding entry into the final term of study.

71.90 Certificate Programme in Quality Control

The programme leading to the Certificate in Quality Control is offered at the Loyola Campus, in the evening only.

71.90.1 ADMISSION REQUIREMENTS

Applications for admission to the certificate programme in Quality Control are submitted to the Admissions Office at the Loyola Campus.

General Admission requirements are listed in §13.

Special requirements are a Diploma of Collegial Studies, or its equivalent, including the CEGEP courses Mathematics 101, 103, 105 and 203, or their equivalents.

71.90.2 CURRICULUM FOR THE CERTIFICATE IN QUALITY CONTROL

To be recommended for the award of the Certificate in Quality Control, students must satisfactorily complete the programme of 48 credits specified below. Of the total credits required, 36 pertain directly to quality control, while the remainder are from computer science, mathematics and other allied areas. The courses offered in the programme will provide the student with an in-depth understanding and working knowledge of the principles and practices used in the rapidly expanding field of quality control.

The programme is fully endorsed by the Montreal Section of the American Society for Quality Control (ASQC). It has been designed in keeping with the requirements stipulated by the Education Institute of the ASQC headquarters and, as such, does much to prepare candidates for the ASQC Quality Engineer Certificate examinations. It should be noted, however, that the certificate programme does not lead to admission to the Order of Engineers of Quebec, or to the legal use of the title Engineer.

71.90.3 ACADEMIC REGULATIONS

Students are subject to the academic regu- of the University.

71.90.4 COURSE REQUIREMENTS

To be recommended for the award of the Certificate, students must satisfactorily complete the following courses:

QUAL C200	Elementary Metrology
QUAL C201	Advanced Metrology
QUAL C202	Statistical Quality Control
QUAL C203	Statistical Sampling
QUAL C204	Basic Concepts of Reliability
QUAL C205	Reliability Engineering
QUAL C206	Quality Management
QUAL C207	Design of Experiments
QUAL C208	Quality Assurance Technology
QUAL C209*	Accounting for Quality Control
QUAL C210	Computer Applications of Statistics
COMP C211	Introduction to Computers and Computing

3 elective credits from Computer Science or Quantitative Methods

*Students admitted before 01 June 1980 may replace this course with QUAN C221.

Course descriptions are given below, except for those with the prefixes QUAN or COMP, which may be found in the Commerce and Administration and Computer Science sections of the calendar.

71.90.5 COURSE DESCRIPTIONS

Please note that new course numbers have been implemented. For equivalent course numbers under the old system, please consult §200.6.

QUAL C200
Elementary Metrology (3 credits)

Prerequisite: MATH C204 and C205 (CEGEP Mathematics 105 and 203). An introductory course dealing with general measurement concepts, methods for estimating accuracy, systematic and constant errors.

Included are: mathematical bases of metrology, statistical analysis of measurement, master standards, principles involved in the use of projectors, pneumatic comparators, and direct reading measuring machines.

QUAL C201
Advanced Metrology (3 credits)

Prerequisite: QUAL C200 & C202. This course applies the principles presented in Elementary Metrology, and explores the value of these principles through everyday applications to modern technology.

Special consideration is given to the 'Système Internationale' (Modernized Metric System) and its influence on industry (including the use of conversion tables and formulae).

The course treats non-destructive testing techniques and their applications, including (in some depth) radiographic, ultrasonic and nucleonic gauging and measurement.

QUAL C202
Statistical Quality Control (3 credits)

Prerequisite: MATH C204 and C205 (CEGEP Mathematics 105 and 203). Techniques for establishing, monitoring and maintaining process control of manufactured products. A workshop course with full student participation in solving a variety of practical statistical quality control problems. Discussed are the concept of variation, frequency distributions, functions of a frequency distribution, the various types of control charts including those for attributes and variables data, analysis of patterns, process capability studies and other related topics.

QUAL C203
Statistical Sampling (6 credits)

Prerequisite: QUAL C202. Statistical sam-

pling theory and its application to quality control. Also discussed in lecture workshop/sessions are risks for producer and consumer.

Topics include elements of probability theory; the binomial; Poisson, and hyper-geometric distribution; sampling theory; sampling plans, classification of sampling plans—AQL, AOQL and LTPD, types of sampling plans within each classification, such as single, double, multiple, unit sequential, and continuous plans and their associated operating characteristic curves. MIL-STD-105D and MIL-STD-414 are discussed in detail and the Dodge and Romig tables are highlighted.

QUAL C204
Basic Concepts of Reliability (3 credits)

Prerequisite: QUAL C202. A mixed format of lectures, workshops, problems and discussions designed to familiarize the student with the basic principles of reliability. Building gradually from historical review, definitions and concepts, the course discusses probability theory, Poisson and exponential distributions, reliability equation, MTBF and failure rate concepts, Weibull analysis, mean and median ranks, confidence statements, life characteristic curves, system reliabilities, standby systems, associated problems and other related topics.

QUAL C205
Advanced Reliability (3 credits)

Prerequisite: QUAL C202 and C204. Statistical methods in life testing. Introduction, reliability concepts and definitions, historical review and development. Life characteristic curve, Poisson and exponential distributions, exponential reliability equation, MTBF and failure rate concepts.

Chi square confidence statements and intervals, Weibull analysis, mean and median ranks, associated problems. Probability theory, system reliabilities, standby systems, and other related topics.

QUAL C206
Quality Management (3 credits)

Prerequisite: MATH C204 and C205 (CEGEP Mathematics 105 and 203). Emphasis is on general principles of planning and management rather than quality control methodology. The concept of total quality control, from design, development and manufacture to customer use, is developed.

The economics of quality, the planning and implementation of a quality cost programme, organization for quality, procurement quality control, in-process control, motivation for quality, value engineering, system quality audit, customer feedback and product liability are topics treated in detail.

QUAL C207
Design of Experiments (6 credits)

Prerequisite: QUAL C202. An introductory course, providing a more systematic approach to experimentation with emphasis on the use of statistical designs for data interpretation and known confidence in the result and overall costs.

The course covers: tests of hypotheses, F, t, and X^2 tests, analysis of variance, goodness of fit tests, use of probability paper, and control chart analysis of experimental results. Also included are experimental design methods such as: full and fractional factorial designs, regression analysis, multiple and random balance designs, latin square, cube and nested designs, etc.

QUAL C208
Quality Assurance Technology (6 credits)

Prerequisite: QUAL C202. The basic principles of quality assurance, and its definition as a planned and systematic pattern of actions necessary to provide adequate confidence that a product or service conforms to established requirements. The development of the individual quality system in a modular format to cover the various phases of the industrial and commercial enterprise. Topics include: development of Quality Organizations, systems engineering, closed loop feedback systems, principle of modular systems, what the customer expects versus what he gets, development of quality product, computer software QA, product safety and reliability, vendor-vendee relations, manufacturing, processing and post-production servicing.

QUAL C209
Product Cost Control (3 credits)

Prerequisite: MATH C204 and C205 (CEGEP Mathematics 105 and 203). This course introduces the student to product cost control and related areas. Topics include introductions to: accounting, procedures, cash flow, budgeting, capital equipment costing and amortization, product costing, cost of quality control systems ('quality costs'). Lectures: 3 hours per week.

QUAL C210
Computer Application of Statistics
(3 credits)

This course is designed to familiarize the student with the application of computers to statistical problems. Computer terminals and batch processing of Fortran programmes are used to develop a working knowledge of standard programmes for control charts, analysis of experimental design, sampling plans, forecasting and statistical analysis common to many other fields. Students are expected to be familiar with elementary statistics and to be able to programme in Fortran. *NOTE A/See §200.6*

CONCORDIA
UNIVERSITÉ

81 Faculty of Fine Arts

81.10 PROGRAMMES AND ADMISSION REQUIREMENTS
81.10.1 Regular Programme
81.10.2 Mature Entry
81.10.3 Extended Credit Programme
81.10.4 Transfer Students
81.10.5 Portfolio Committee
81.10.6 Music Theory Placement Test
81.10.7 Music Auditions

81.20 DEGREE REQUIREMENTS
81.20.1 BFA Degree Requirements
81.20.2 Residency Requirements
81.20.3 Course Load
81.20.4 BFA Honours Programme Requirements
81.20.5 Diploma in Art Education
81.20.6 Diploma in Art Therapy
81.20.7 Programme Advisers

81.30 PERFORMING ARTS

81.40 VISUAL ARTS

81.50 INTER-RELATED ARTS

81.60 ART EDUCATION

81.70 ART HISTORY

81.80 CINEMA AND PHOTOGRAPHY

81.90 DESIGN

81.100 MODERN DANCE

81.110 MUSIC

81.120 PAINTING AND DRAWING

81.130 PRINTMAKING

81.140 SCULPTURE AND CRAFTS

81.150 THEATRE

81 Faculty of Fine Arts

Dean
ANTHONY EMERY

Assistant Deans
SHERMAN FRIEDLAND
ROBERT PARKER

Assistant to the Dean (Student Programmes)
E. ANNE ADAMS

81.10 Programmes and Admission Requirements

81.10.1 REGULAR PROGRAMME

General admission requirements for the 90-credit degree programme are listed in §*13*.

Specific information concerning the programmes and their specific admission requirements are listed below.

Profile*	Programme	Calendar Section
00.0	Inter-Related Arts	81.50
VISUAL ARTS		
00.0	Archaeology	81.60
10.6	Art Education	81.50
00.0	Art History	81.60
10.6	Art History and Studio Art	81.60, 81.120
00.0A,K	Cinema	81.80
10.6A,K	Design	81.90
00.0A,K	Film Animation	81.80
00.0A,K	Film Production	81.80
00.0A,K	Film Studies	81.80
10.6A,K	Graphic Design	81.90
00.0A,K	Photography	81.80
10.6	Printmaking	81.130
10.6	Studio Art	81.120
PERFORMING ARTS		
00.0A	Drama	81.150
00.0A	Drama in Education	81.150
00.0A	Integrative Music Studies	81.120
00.0A	Modern Dance	81.100
00.0	Music	81.120
10.7A	Music Performance Studies	81.120
10.7A	Music Theory/Composition	81.120
10.7A	Selected Music Studies	81.120
00.0	Theatre	81.150
00.0A	Theatre Performance Studies	81.150
00.0A,K	Theatre Scenography	81.150

*Please note the following explanation of letters appearing after profile number.
A: Interview/Audition
K: Submission of a Portfolio of representative work

81.10.2 MATURE ENTRY

General admission requirements to the 108 credit programme (Mature Entry) are listed in §14.

Students admitted into the Faculty of Fine Arts by the Mature Entry plan are required to complete 18 credits in addition to the 90 credits normally required for the degree. In Fine Arts, students are required to complete the following courses:

6 credits in English or French
12 credits elective appropriate for entry into the student's ultimate area of concentration chosen from the course listings in Student Programme Office of the Faculty of Fine Arts

81.10.3 EXTENDED CREDIT PROGRAMME

Students admitted to the 120 credit Extended Credit Programme in Fine Arts are

required to complete 30 credits in addition to the 90 credits normally required for the degree. In Fine Arts students are required to complete the following courses:

6 credits in English or French
24 credits elective appropriate for entry into the student's ultimate area of concentration chosen from the course listings in §14.4, in consultation with an adviser. Students wishing to apply for programmes in all the Studio Art departments should complete Art C200 as 6 of these elective credits.

81.10.4 TRANSFER STUDENTS

Students who have completed courses in other colleges or universities and wish to apply for advanced standing, are granted credits on the basis of the programme at Concordia University.

Studio Art students *must submit* a portfolio and/or slides of their work to the Portfolio Committee of Visual Arts, for placement recommendation. Any student who does not submit this portfolio is required to complete Art C200 as part of the degree requirements. To request exemption for Art C200, the portfolio should contain examples of drawing, painting, two- and three-dimensional design, sculpture and related media (see below). For advanced standing in any of the studio areas, students should submit examples of work in the specific area in which the exemption is being sought. *This must be done prior to registration.*

Music students wishing exemption must arrange to write the Music Theory Placement Test and/or audition with the Division of Performing Arts. *This must be done prior to registration.*

Students seeking a second degree must complete a minimum of 60 credits at Concordia University (see §16.1.5). Students transferring credits towards a first degree must complete a minimum of 45 credits at Concordia (see §16.1.5). These students must complete all programme and degree requirements, as well as the Faculty of Fine Arts residency requirements (see §81.20.2).

81.10.5 PORTFOLIO COMMITTEE

The foundation course for all studio art programmes in Visual Arts is Art C200. Students wishing to apply for an exemption from Art C200 on the basis of previous studio art work must submit a portfolio containing examples of their art work. This portfolio should include examples of drawing, painting, two- and three-dimensional design, sculpture and related media, normally a minimum of 20 and a maximum of 30 works.

Normally, the University does not request submission of a portfolio as a basis of admission. However, to request advanced placement in any of the studio art areas, students must submit, in addition to the work submitted for the Art C200 exemption, examples of art work in the specific area in which the exemption is sought. Exemption and/or credit for specific studio art courses is granted only on the basis of the student's portfolio. Specific information concerning the number of submissions required in any studio art area is available through the departmental offices.

Portfolios must be submitted *at least one week prior to preregistration or registration,* to the Portfolio Committee of the Faculty of Fine Arts. These portfolios should be submitted to the secretary of the relevant department.

81.10.6 MUSIC THEORY PLACEMENT TEST

All students with prior music study, except those who have received written notification of exemption for Music C210, must contact the Department of Music in order to arrange for a Theory Placement Test. *This must be done at least two weeks prior to registration.*

81.10.7 MUSIC AUDITIONS

All students wishing to register for Music ensembles, the orchestra, the choir, etc. must contact the Department of Music *at least two weeks prior to registration* to arrange an audition.

81.20 Degree Requirements

Students preparing for the degree of Bachelor of Fine Arts will take a minimum of 90 credits. Each credit represents, for the average student, a mimimum of 45 hours of work spread across lectures, conferences, laboratories, studio or practice-periods, tests, examinations, and personal work.

81.20.1 BFA DEGREE REQUIREMENTS

Graduation with the degree of Bachelor of Fine Arts requires:

(a) Concentration Requirements

Successful completion of a Specialization, Honours, Major or Double Minor programme in Fine Arts.

The selection is made upon entry, prior to registration. The requirement of selecting a programme upon entry should not be thought of as being necessarily a final commitment. The Fine Arts programmes are designed to be flexible enough to allow for changes, subject to limitations where certain programmes are in great demand.

A "Minor" is made up of an approved sequence of 24-30 credits. The term "Double Minor" states that the student has followed, within the requirements for the BFA degree, a planned programme of study in two specialized fields in Fine Arts, with a lower degree of concentration in either than is afforded by a Major Programme.

(b) Distribution Requirements

1. All students must successfully complete a minimum of 18 credits chosen from course offerings outside the Faculty of Fine Arts*.

2. Students in programmes of concentration of 66 credits or less, require 6 credits selected from outside their area of concentration. This means that these credits must be selected from courses in other Departments. For students in programmes of Art Education, Graphic Design and Studio Art these credits must be selected from course offerings outside the studio art courses offered by the Departments of Art Education, Design, Painting and Drawing, Printmaking, Sculpture and Crafts, and the studio courses in Photography offered by the Department of Cinema and Photography. Students may, however, select

Art C460, C461 and Photography C250 to fulfill this requirement.

3. Students in programmes of concentration of 60 credits or less require additional credits to make up the 90 credits required for the degree. These "free" electives may be selected from courses either inside the Faculty or from other faculties. However, students must have the prerequisites required for the courses selected. Also, students are subject to the availability of space in these courses.

**Communication Studies courses do not fulfill the BFA degree requirement, which states that 18 credits shall be outside the Faculty of Fine Arts.*

81.20.2 RESIDENCY REQUIREMENTS

To fulfill the residency requirements for a BFA degree with a concentration in:

1. Art Education, Graphic Design, Printmaking, or Studio Art: at least 30 credits in Studio Art and 6 credits in Art History must be taken at Concordia.
2. Cinema, Film Production, or Film Studies: at least half of the required credits in Cinema must be taken at Concordia.
3. Drama, Drama in Education, Theatre Performance, or Theatre Scenography: at least 30 credits in Theatre Arts must be taken at Concordia.
4. Music, Music Performance Studies, Music Theory/Composition, Selected Music Studies, or Studio Music: at least 30 credits in Music must be taken at Concordia.
5. Art History, Art History and Studio Art: at least half of the required credits in Art History and Studio Art must be taken at Concordia.
6. Minor programmes: at least 15 credits required in the minor must be taken at Concordia.

Ordinarily, these, combined with the other Degree requirements (see §81.20) imply that the full-time student must enroll for a minimum of two years of study at Concordia University.

Students are also subject to the University residency requirements (see §16.1.5).

81.20.3 COURSE LOAD

The normal course load for students enrolled in the Faculty of Fine Arts is 30 credits per year for all full-time students.

i) Full-time students may not register for more than 18 credits of their 30 credits in any studio area in any given academic year. Part-time students may not register for more than 12 credits.

ii) Students may register for a maximum of one course (6 credits) in which films are produced as a course requirement during any given academic year. *See §81.80.3 for list of courses.* Also, students are limited, during their degree programme, to 18 credits in Film Production or Film Animation courses in which films are produced as a course requirement. *See §81.80.3.* With special permission, Cinema majors in Option B, Film Animation are permitted to complete a total of 24 credits in these courses, of which 12 credits may be taken in any one year.

iii) Students may register for only 6 credits in Theatre Production (Theatre Arts Section) in any given academic year.

iv) Students may register for only 6 credits in Music Private Study in any given year.

v) *Special students* in the Faculty of Fine Arts may register for a maximum of 18 credits during any given academic year.

To carry additional credits, a student must submit a student request for permission to do so to the Assistant Dean of the Faculty.

81.20.4 BFA HONOURS PROGRAMME REQUIREMENTS

See Academic Regulations §16.2.4.

Prospective Honours Students must apply for entry to the programme after the completion of 30 credits and prior to the commencing of their last 30 credits of the BFA degree.

Applications are made through the honours adviser upon completion of 30 credits.

81.20.5 DIPLOMA IN ART EDUCATION

The Faculty of Fine Arts offers a one-year post-graduate programme leading to the Diploma in Art Education. This programme is integrated with the Bachelor of Fine Arts (Specialization in Art Education) to provide a continuous pattern of studies preparing art specialists for teaching in elementary and secondary schools. In order to qualify for admission, students must have completed the Concordia University Bachelor of Fine Arts (Specialization in Art Education) or the equivalent. Graduates of other institutions will be considered if they have had the equivalent of an undergraduate major in studio work and can present an acceptable portfolio. They will be expected to make up the Education and Art Education courses included in the Bachelor of Fine Arts, Specialization in Art Education. The Diploma Programme is offered in the day only. Graduates who have been awarded the Diploma in Art Education meet the requirements for a Specialists Certificate in Art, awarded by the Quebec Board of Education. A detailed description of the Programme may be found in the Graduate Studies calendar.

81.20.6 DIPLOMA IN ART THERAPY

The Faculty of Fine Arts offers a one year post-graduate programme leading to the Diploma in Art Therapy.

This programme is designed to offer intermediate training for students intending to become qualified art therapists through further graduate study and to provide basic skills in art therapy for members of the helping professions who wish to develop the use of the visual arts in their work.

Normally the programme takes one year of full-time study; however, classes are arranged, as far as possible, to accommodate part-time students, who are expected to complete a minimum of two courses (12 credits) in their first year. The programme includes a practicum requirement.

Admission to the programme depends upon a suitable background of study in art and psychology. Students must have completed the Bachelor of Fine Arts, Major in Art Education at Concordia University or its equivalent.

A detailed description of the programme may be found in the Graduate calendar.

81.20.7 PROGRAMME ADVISERS

The Faculty of Fine Arts has a Student Programme Office where students may obtain information on Faculty regulations and assistance in planning their programmes in Fine Arts. The advisers have a complete list of faculty members to whom students are referred for detailed information on classes and programmes.

The Faculty of Fine Arts consists of two divisions, comprising departments, a section and numerous programmes.

81.30 Division of Performing Arts

The Performing Arts Division consists of a Department of Music and a Department of Theatre and a section of Modern Dance.

Programmes:

For information concerning any of the following programmes in the Division of Performing Arts please consult the calendar section listed opposite the programme.

Programme	Calendar Section
Drama, Major	81.150.1
Drama in Education, Specialization	81.150.1
Integrative Music Studies	81.120.1
Modern Dance, Major	81.100.1
Music, Minor	81.120.1
Music Performance, Specialization	81.120.1
Music Theory/Composition, Specialization	81.120.1
Selected Music Studies, Specialization	81.120.1
Studio Music, Specialization	81.120.1
Theatre, Minor	81.150.1
Theatre Performance, Specialization	81.150.1
Theatre Scenography, Specialization	81.150.1

81.40 Division of Visual Arts

The Visual Arts division consists of the following departments:

Art Education
Art History
Cinema and Photography
Design
Painting and Drawing
Printmaking
Sculpture and Crafts

Programmes:

For information concerning any of the following programmes in the Division of Visual Arts please consult the calendar section listed opposite the programme.

Programme	Calendar Section
Archaeology, Minor	81.60.1
Art Education, Diploma	81.50
Art Education, Specialization	81.50.1
Art Education, Major	81.50.1
Art Education for Teachers, Certificate	81.50
Art History, Honours	81.60.1
Art History, Major	81.60.1
Art History, Minor	81.60.1
Art History and Studio Art, Major	81.60.1, 81.120.1
Art History and Studio Art, Minor	81.60.1, 81.120.1
Art Therapy, Diploma	81.50
Cinema, Major	81.80.1
Cinema, Minor	81.80.1
Design, Major	81.90.1
Film Animation, Minor	81.80.1
Film Production, Specialization	81.80.1
Film Studies, Specialization	81.80.1
Film Studies, Minor	81.80.1
Graphic Design, Honours	81.90.1
Photography, Major	81.80.1
Photography, Minor	81.80.1
Printmaking, Specialization	81.130.1
Studio Art, Major	81.120.1

81.50 Inter-Related Arts

Co-ordinator
K. AUSTIN

The Faculty of Fine Arts offers a programme in Inter-Related Arts for students wishing to focus their studies on more than two disciplines. Such students are advised to select courses from the list below in consultation with the Faculty co-ordinator.

60	**BFA Major in Inter-Related Arts***
0-24	Art History Department: Art History elective credits**
0-24	Cinema and Photography Department: Cinema elective credits chosen from Film Studies C200^{6}, C211^{6}, C212^{6}, C311^{3}, C312^{3}, C313^{3}, C314^{3}, C315^{3}, C318^{3}, C321^{6}, C322^{6}, C323^{3}, C324^{3}, C326^{3}, C327^{3}, C328^{3}, C329^{3}, C411^{3}, C413^{3}, C414^{3}, C415^{3}, C416^{3}, C417^{3}, C418^{3}, C419^{3}, C422^{3}, C423^{3}, C424^{3}, C425^{3}, C427^{3}, Film Animation C312^{6}, Film Production C231^{6}
0-24	Modern Dance elective credits chosen in consultation with the Dance Co-ordinator
0-24	Music Department: Music elective credits chosen in consultation with a programme adviser, Music
0-24	Studio Art Department: Studio Art elective credits**
0-24	Theatre Arts (Drama) Department: Theatre Arts elective credits chosen in consultation with a programme adviser, Theatre Arts

**Credits must be taken in a minimum of 3 fields of concentration with a maximum of 24 credits in any field.*

***Art C460 may be substituted for 6 credits in Studio Art or Art History.*

81.60 Art Education

Chairman
D. PARISER, *Assistant Professor*

Professor
L. SHERMAN

Associate Professors
M. EDWARDS
S. HORNER
R. PARKER

G. ROSINE
E. SACCA

Lecturer
J. BYERS

81.60.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

78*	**BFA Specialization in Art Education**
24	Art Education C300[6], C400[6], C430[6], Crafts C200[6]
6	Art History electives
6	Art History C244[6]
18	Art C200[6] (or, if exempt, a Studio Art elective), Drawing C200[6], Painting C200[6], Sculpture C200[6], Design C200[6], Printmaking C210[6], C220[6], C230[6]
12	Studio electives chosen in consultation with a programme adviser, Art Education
12	Drama in Education or Music electives

**With written permission of the Chairman of the Department, students may take an extra 6 credits from offerings of the Faculty of Fine Arts.*

***Art C460 may be substituted for an Art History elective.*

NOTE: Students applying to the Diploma in Art Education and for Quebec Certification must, in addition, take Education C210.

60	**BFA Major in Art Education**
24	Art Education C300[6], C400[6], Crafts C200[6], Art C200[6] or, if exempt, a Studio Art elective
12	Art History electives
24	Studio Art elective credits (Film Animation C312 may be substituted for 6 credits in Studio Art)

**Art C460 may be substituted for an Art History elective.*

NOTE: This programme is an alternative to the BFA Specialization in Art Education and does not lead directly into the Diploma in Art Education. Electives permit a wider choice in appropriate complementary areas in preparation for graduate study in areas such as art therapy, museum work, recreation, geriatrics and fine arts administration. Students wishing to qualify for the Diploma in Art Therapy should include art therapy and psychology courses in their programme.

81.60.2 THE CERTIFICATE IN ELEMENTARY ART EDUCATION

The Department of Art Education offers a Certificate in elementary art education for the professional development of teachers. The programme is designed in accordance with the guidelines of the Quebec Ministry of Education and consists of studios, seminars, lectures, and a practicum. The programme offers classroom teachers opportunities to acquire the knowledge and skills needed to implement the elementary art programme and to enrich the curriculum by relating art to other subject areas. Courses are scheduled in the late afternoon or evenings, both on and off campus for the convenience of teachers.

Admission Requirements

Entry to the programme requires that the candidate be legally qualified to teach either at the elementary or high-school level. The Faculty of Fine Arts may allow up to 12 *pro tanto* credits to students who have completed appropriate courses that have been applied to a previous degree or certificate.

30	**Certificate in Elementary Art Education**
6	Art Education C200[6]
6	Art C200[6]
6	Art Education C330[6]
12	Electives from other offerings within the Faculty of Fine Arts

81.60.3 COURSE DESCRIPTIONS

Art Education:

ART EDUCATION C200
Orientation to Art Education (6 credits)

A studio workshop course of interest to teachers, recreation workers and others interested in applications of the visual arts. No previous art experience is required. Students are introduced to various art media including painting, collage construction, printing, and modelling, and helped to see the educational possibilities of these media. *NOTE A/See §200.3*

NOTE: Students who receive credits for this course may not take Art Education C201 for credit.

ART EDUCATION C201
Art in Early Childhood I (3 credits)
Prerequisite: Enrolment in the Specialization in Early Childhood, Major in Child Studies, or written permission of the Department of Art Education. An introductory study of the art-making process in early childhood. This course is a studio workshop which investigates potential media and teaching approaches appropriate for the young child.
NOTE: Students who receive credit for this course may not take Art Education C200 for credit.

ART EDUCATION C202
Art in Early Childhood II (3 credits)
Prerequisite: Art Education C201. A continuation of Art Education C201.

ART EDUCATION C300*
An Introduction to Art Education
(6 credits)
Prerequisite: 18 credits in Studio Art and second-year standing** or permission of the Art Education Department. A workshop-seminar course in which materials and art concepts are investigated and related to the teaching of art. Readings in the literature of Art Education are included.
**With permission of a Studio Art Department Chairman this course may satisfy studio elective requirements of the student's degree programme.*
***fewer than 66 credits remaining in degree programme.*

ART EDUCATION C301
Methodologies and Resources for the Teaching of Art History (3 credits)
Prerequisite: 6 credits in Art History. This course deals with the methodologies, resources, and content for teaching art history in elementary and secondary schools. The course consists of lectures, museum seminars, and field trips.

ART EDUCATION C302
Special Topics in Art Education (3 credits)
Prerequisite: Written permission of the Department of Art Education. A course which provides an opportunity for the study of specialized aspects of art education. Topics chosen for consideration vary from year to year. *NOTE C/See §200.3*

ART EDUCATION C303
Special Topics in Art Education (3 credits)
Prerequisite: Written permission of the Department of Art Education. A student repeating Art Education C302 registers under Art Education C303 for credit provided the subject matter is different.

ART EDUCATION C310
Art Education in the Museum (6 credits)
Prerequisite: 6 credits in Art History. An introduction to the role of art education in the museum and to the function of the museum in society. Fundamental problems in museum studies are considered in relation to the collection, preservation, exhibition and interpretation of art objects. The museum as an educational institution is studied in lectures, seminars, readings and field work. Topics include the educator's responsibilities in the planning and installing of exhibits, organizing docent and lecture programmes, and the preparing of audio-visual materials for the public.

ART EDUCATION C330
Supervised Practicum in Elementary Art Education (6 credits)
Prerequisite: Art Education C200, Art C200, and enrolment in the Certificate Programme in Art Education for Teachers. The course includes seminars which examine the role of art in the educational system, and the theoretical framework for the planning and implementation of art activities. Students design curriculum-units in art for the elementary level and teach these under supervision in a school setting. Teaching performance is evaluated.

ART EDUCATION C400
Seminar and Practicum in Art Education
(6 credits)
Prerequisite: Art Education C300, enrolment in the Specialization or Major in Art Education or written permission of the Department. The development of a philosophy of art education on the basis of studio experiences, readings and the observation of and participation in teaching experiences. This course includes weekly seminars and a practicum*. *NOTE A/See §200.3*
NOTE: Students intending to apply for the Diploma in Art Education are required to fulfill the practicum obligation on Saturdays.

ART EDUCATION C401
Special Topics in Art Education (3 credits)
Prerequisite: Written permission of the Department of Art Education. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of art education. The topics chosen for consideration vary from year to year according to the instructor's field of specialization. *NOTE C/See §200.3*

ART EDUCATION C402
Special Topics in Art Education (3 credits)
Prerequisite: Written permission of the Department of Art Education. A student repeating Art Education C401 registers under Art Education C402 for credit provided the subject matter is different.

ART EDUCATION C430*
Multi-Media (6 credits)
Prerequisite: 18 credits in Studio Art and second-year standing** or permission of the Art Education Department. An introduction to photography, super-8 film-making, video, and sound. The course deals with the practical and theoretical aspects of these media and explores their potential for the artist and art educator. *NOTE A/See §200.3*
**With permission of a Studio Art Department Chairman this course may satisfy the studio elective requirements of the student's degree programme.*
***fewer than 66 credits remaining in degree programme.*

Art Therapy:

Courses in Art Therapy are intended as part preparation for graduate study in this area.

ART THERAPY C300
An Introduction to Art Therapy (6 credits)
Prerequisite: Second-year standing* and permission of the Department, Psychology C200 (or equivalent); Major in Art Education or 12 credits in Studio Art. This course con-

sists of lectures, seminars and workshops which examine basic concepts of art therapy and some of their practical application.

*more than 30 credits on record.

ART THERAPY C400
Seminar and Practicum in Art Therapy
(6 credits)

Prerequisite: Art Therapy C300 or written permission of the Department of Art Education. An examination through seminars and workshops of the inter-relationship between studio practice and the use of art in clinical and other therapeutic settings. The practicum will include observation visits and supervised introductory experience relevant to art therapy, with selected children or adults. Emphasis is given to the problematic nature of a philosophy of art therapy.

81.70 Art History

Chairman
D. ANDRUS, *Associate Professor*

Professors
E.F. COOKE
W. SANDERSON

Associate Professors
H. GEORGE
E. JAMES
S. PAIKOWSKY

Assistant Professors
J. BELISLE
R. GREENBERG
L. LACROIX
C. MACKENZIE

81.70.1 PROGRAMMES

Students are responsible for satisfying their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

60* BFA Honours in Art History

6	Art History C250[6]**
6	Art History C471[3], C472[3], C480[6], C490[6]
6	Art History C495[6]
6	Art History C234[6], Art C200[6], or, if exempt 6 credits from Painting C200[6], Drawing C200[6]
36	Art History elective credits chosen in consultation with the Honours Adviser***

**Prospective Honours students must apply for entry to the programme after the completion of 30 credits and prior to the commencement of their last 30 credits of the BFA degree.*

***Students who have entered this programme prior to the Fall Session 1983 and who have not completed ARTH C240[6] must take ARTH C250.*

****6 credits in Art History may be substituted outside the Department of Art History.*

60 BFA Major in Art History

30	Art History C250[6]*, Art History C339[6], C342[6], C343[6], C455[6]
6	Art History C234[6], or Art C200[6], or, if exempt, 6 credits from Painting C200[6], Drawing C200[6]
24	Art History electives selected in consultation with an assigned adviser

**Students who have entered this programme prior to the Fall Session 1983 and who have not completed ARTH C240[6] must take ARTH C250[6].*

60 BFA Major in Art History and Studio Art

6	Art History C250[6]
6	Art History C234[6] or Studio Art elective
6	Art C200[6] or, if exempt, a Studio Art elective
24	Art History electives**
18	Studio Art electives

**Students who have entered this programme prior to the Fall Session 1983 and who have not completed ARTH C240[6] must take ARTH C250[6].*

***Art C460 may be substituted for 6 credits in Art History.*

30 Minor in Archaeology

12	Art History C210[6], C310[6]
6	Art History C410[6], C415[6]
12	Electives chosen with the permission of the Archaeology Co-ordinator from Art History C338[6], C339[6], C440[6], C441[6] or appropriate courses in Anthropology, Chemistry, Classics, Geography, History, or Physics

**Students completing these electives for the Minor in Archaeology and who wish to combine the Minor with a Major or Specialization in the Faculty of Fine Arts, may be granted, with permission of the Chairman of the Department of Art History, exemption from 12 credits required from outside the Faculty.*

30 Minor in Art History

6	Art History C250[6]*
18	Art History C339[6], C342[6], C343[6], C455[6]
6	Art History elective

**Students who have entered this programme prior to the Fall Session 1983 and who have not completed ARTH C240[6] must take ARTH C250[6].*

30 Minor in Art History and Studio Art

6	Art History C250[6]*
6	Art C200[6] or, if exempt a Studio Art elective
6-12	Art History electives
6-12	Studio Art electives

**Students who have entered this programme prior to the Fall Session 1983 and who have not completed ARTH C240[6] must take ARTH C250[6].*

81.70.2 COURSE DESCRIPTIONS

ART HISTORY C210
Principles of Archaeology (6 credits)
An introduction to archaeological methods and techniques, with examples drawn from the ancient civilizations of the Americas and the Mediterranean.
NOTE: Students who have received credit for Interdisciplinary Studies-Archaeology S333 or Archaeology-Interdisciplinary Studies S333 may not take this course for credit.

ART HISTORY C232
Introduction to Architecture and Sculpture (6 credits)
Enables the student to understand and appreciate great works in architecture and sculpture and to develop a discriminative understanding of three-dimensional form in design and in the architectural environment. The main types, styles, and techniques of these arts are explained and illustrated. To understand their significance, the student is encouraged to become familiar with great examples of these arts through pictorial reproductions, slides, models, museum visits, and field trips. *NOTE A/See §200.3*

ART HISTORY C234
Materials and Methods of the Artist (6 credits)
Prerequisite: Enrolment in Honours in Art History, or Major in Art History, or Major in Art History and Studio Art. Through a series of special projects, this course familiarizes the student with some of the various materials, techniques, and other aspects of the artist's craft, with special emphasis being given to historical techniques. Lectures and studio work. *NOTEA/See §200.3*

ART HISTORY C244
Introduction to the Arts in Canada (6 credits)
A history of the development of the arts in Canada from the seventeenth century to the present. Representative works in various media studied in relationship to their milieu. Introduction to research projects specific to the field. *NOTE A/See §200.3*

ART HISTORY C244
Introduction de l'art au Canada (6 crédits)
Historique du développement des arts au Canada du XVIIe siècle à nos jours. Les oeuvres étudiées seront choisies en rapport à leur importance pour le milieu. Introduction aux problèmes de la recherche dans le domaine. *NOTE A/Voir §200.3*

ART HISTORY C249
Canadian Sculpture and Architecture (6 credits)
A study of the more important developments of Canadian architecture and sculpture, from indigenous forms to contemporary works. *NOTE A/See §200.3*

ART HISTORY C250
Principles and Practices of Art History (6 credits)
An introduction to the discipline of Art History based upon a study of the formal characteristics of the work of art, its historical context and the methods employed in its analysis.

ART HISTORY C250
Théories et méthodes de l'histoire de l'art (6 crédits)
L'analyse des caractéristiques formelles des oeuvres d'art, les conditions historiques de production artistique, et l'examen des méthodes utilisés en histoire de l'art sont les trois volets qui constituent ce cours de base.

ART HISTORY C310
Applied Archaeology (6 credits)
Prerequisite: Art History C210. Students apply theoretical archaeological methods to the excavation of a prepared site and report on the excavation and their findings.
NOTE: Students who have received credit for Art History C480 must have written permission from the Archaeology Co-ordinator to register for this course.

ART HISTORY C338
Art in the Ancient Near East (6 credits)
An introduction to the art, architecture, and minor arts in the ancient Near East and Aegean, placing special emphasis upon Egypt, Mesopotamia, Crete, and the Cycladic Islands. *NOTE A/See §200.3*

ART HISTORY C339
Art and Architecture in Ancient Greece and Rome (6 credits)
An introduction to the art and architecture of the Mycenaean, Greek, Etruscan, and Roman civilizations. *NOTE A/See §200.3*

ART HISTORY C342
The Renaissance in Italy (6 credits)
A survey of painting, sculpture, and architecture in Italy during the fifteenth and sixteenth centuries. *NOTE A/See §200.3*

ART HISTORY C343
The History of Nineteenth-Century Art (6 credits)
Beginning with the age of neo-classicism, this course examines Romanticism, Realism, Impressionism, Neo-Impressionism, and other nineteenth-century European movements. *NOTE A/See §200.3*

ART HISTORY C343
Histoire de l'art au XIXe siècle (6 crédits)
Étude de l'évolution de l'art européen au XIXe siècle depuis le néo-classicisme en passant par le romantisme, le réalisme, l'impressionnisme, et le post-impressionnisme et les autres mouvements marquants. *NOTE A/Voir §200.3*

ART HISTORY C346
History of Modern Architecture (6 credits)
An examination of the major building styles from the mid-eighteenth century through the twentieth century. Special emphasis on the contributions of individual architects. *NOTE A/See §200.3*

ART HISTORY C347
History of Drawing (3 credits)
Prerequisite: Six credits in Art History. The history of drawing in Western art. Topics examined include the working drawing, the emergence of drawing as an independent art form, the historical role of drawing in the education of the artist, and the formal qualities of drawing which distinguish it from other modes of visual expression.

ART HISTORY C348
History of Printmaking (3 credits)
Prerequisite: Six credits in Art History. The development and role of the print in the history of art. Topics include the evolution of the various techniques of printmaking, the educational function of the print, the formal qualities of the print which distinguish it from other means of visual expression, and its emergence as an independent art form.

ART HISTORY C410
Field Archaeology (6 credits)
Prerequisite: Art History C210 and C310. Supervised participation at a site approved by the Archaeology Co-ordinator. Students submit a paper concerning their participation in the excavation.

ART HISTORY C415
Topics in Archaeology
(6 credits) Prerequisite: Art History C210 and C310. A course for advanced students, with subject matter varying according to the interests of the instructor.

ART HISTORY C420
Architectural Principles and Practice in the Western Tradition (6 credits)
Prerequisite: 12 credits in Art History, or written permission of the Department of Art History. An examination of the interrelationship between style, structure, and meaning in selected periods of the History of Architecture. Consideration is also given to the social and aesthetic factors involved.

ART HISTORY C425
Architecture in Canada (6 credits)
Prerequisite: 6 credits in Art History or written permission of the Department of Art History. An examination of the origins and evolution of regional and national architectural forms from New France to the present. The influence of prevailing international theories and styles is considered.

ART HISTORY C425
L'architecture au Canada (6 crédits)
Préalable: 6 crédits en histoire de l'art, ou la permission écrite du Département d'histoire de l'art. Survol de l'évolution de l'architecture régionale et nationale depuis la Nouvelle-France jusqu'à nos jours. L'influence des théories et des styles internationaux y est examinée.

ART HISTORY C426
Art in Canada Before the 1930's
(6 credits)
Prerequisite: 6 credits in Art History or written permission of the Department of Art History. A study of painting, sculpture and the decorative arts from New France until the emergence of Modernism. Emphasis is placed upon prevailing regional and national concerns contributing to the character of art in Canada. Where relevant, attention is given to European and American influences.

ART HISTORY C427
Art in Canada Since the 1930's (6 credits)
Prerequisite: 6 credits in Art History or written permission of the Department of Art History. An examination of modern art in Canada within the context of the cultural, theoretical and formal issues that have shaped its development.

ART HISTORY C439
Iconography (6 credits)
Prerequisite: 12 credits in Art History. This course examines recurring visual symbols in Western Art which are derived from Classical or Christian literature.

ART HISTORY C440
Early Christian and Byzantine Art
(6 credits)
Prerequisite: 6 credits in Art History or written permission of the Department of Art History. A history of Christian art and architecture from their late Roman beginnings through the sixth century in Western Europe to the fall of Byzantium in 1453 in the East. The genesis and growth of major iconographic themes and their changing stylistic expressions are considered in architecture, mural decoration, manuscript illumination, and the liturgical arts.

ART HISTORY C441
The History of Medieval Art (6 credits)
Prerequisite: 6 credits in Art History. This course examines the arts of the Middle Ages, beginning with the Carolingian Renaissance. Special emphasis is given to the architecture and sculpture of the Romanesque monasteries and the great Gothic cathedrals, as well as to the deluxe manuscripts of the French Court. *NOTE A/See §200.3*

ART HISTORY C442
The Renaissance in Northern Europe
(6 credits)
Prerequisite: 6 credits in Art History. This course investigates the development of art in France, Flanders, Germany, and Austria in the fifteenth and sixteenth centuries. *NOTE A/See §200.3*

ART HISTORY C443
History of Baroque and Rococo Art and Architecture (6 credits)
Prerequisite: 6 credits in Art History. This course examines the major achievements in Dutch, English, Flemish, French, Italian, Spanish, German, and Austrian art and architecture in the seventeenth and eighteenth centuries. *NOTE A/See §200.3*

ART HISTORY C445
American Art and the European Background (6 credits)
Prerequisite: 6 credits in Art History. A survey of American Art from earliest colonial times into the early twentieth century, viewed against the background of those European developments which have significantly affected it. *NOTE A/See §200.3*

ART HISTORY C450
The Decorative Arts (6 credits)
Prerequisite: 6 credits in Art History. An examination of selected aspects of the Decorative Arts, including furniture, glass, pottery and porcelain, metals and metal alloys, and textiles.

ART HISTORY C451
English Art 1750-1910 (6 credits)
Prerequisite: 6 credits in Art History or written permission of the Department of Art History. A study of English art from the beginning of Romanticism to the first Post-Impressionist exhibition in London. The primary emphasis is on painting, its theoretical basis, and its relationship to Continental art.

ART HISTORY C455
Art in the Twentieth Century (6 credits)
Prerequisite: 6 credits in Art History. Starting with Fauvism, this course examines the main movements and trends which have occurred in Western art during the twentieth century. *NOTE A/See §200.3*

ART HISTORY C456
Art of the Americas (3 credits)
Prerequisite: 6 credits in Art History or written permission of the Department of Art History. An examination of the art and architecture of selected indigenous cultures of the Americas, emphasizing their place in an aesthetic and art historical tradition.

ART HISTORY C458
Non-Western Art (3 credits)
Prerequisite: 6 credits in Art History or written permission of the Department of Art History. An examination of the art and architecture of selected non-Western cultures, emphasizing their place in an aesthetic and art historical tradition.

ART HISTORY C459
Western Art Since 1940 (6 credits)
Prerequisite: 6 credits in Art History. An examination of recent developments in Western Art. Topics for discussion include the emergence of New York as a centre of contemporary art, the relationship of post World War II European art to that of North America, the generation of new art forms, the development of multi-media works, and the nature and role of criticism.

ART HISTORY C459
L'art occidental depuis 1940 (6 crédits)
Préalable: 6 crédits en histoire de l'art. Examen des nouveaux faits survenus récemment dans l'art occidental. Les sujets traités comprennent l'émergence de New York comme centre d'art contemporain, les rapports entre l'art européen d'après la Deuxième Guerre mondiale et celui de l'Amérique du Nord, l'apparition de nouvelles formes d'art, la création d'oeuvres multi-disciplinaires ainsi que la nature et le rôle de la critique.

ART HISTORY C471
Special Topics in Art History (3 credits)
Prerequisite: 12 credits in Art History or written permission of the Department of Art History. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of Art History. *NOTE A/See §200.3*

ART HISTORY C472
Special Topics in Art History (3 credits)
Prerequisite: Written permission of the Department of Art History. A student repeating Art History C471 registers under Art History C472 for credit provided the subject matter is different. *NOTE A,C/See §200.3*

ART HISTORY C473
Special Topics in Art History (3 credits)
Prerequisite: Written permission of the Department of Art History. A student repeating Art History C472 registers under Art History C473 for credit provided the subject matter is different *NOTE C/See §200.3*

ART HISTORY C474
Special Topics in Art History (3 credits)
Prerequisite: Written permission of the Department of Art History. A student repeating Art History C473 registers under Art History C474 for credit provided the subject matter is different.

ART HISTORY C480
Special Studies in the History of Art
(6 credits)
Prerequisite: 12 credits in Art History. Students in this course examine and discuss selected aspects of Art History. The areas chosen for consideration vary from year to year according to the instructor's field of specialization. All students are required to undertake research projects and to submit papers based on their investigations. *NOTE A/See §200.3*

ART HISTORY C481
Special Studies in the History of Art
(6 credits)
Prerequisite: Art History C480. A student repeating Art History C480 registers under Art History C481 for credit provided the subject matter is different.

ART HISTORY C490
Advanced Studies in Art History (6 credits)
Prerequisite: 18 credits in Art History and written permission of the Department of Art History. A course for advanced students which provides for the study of limited and more specialized areas of Art History. The areas chosen for study vary from year to year according to the instructor's field of specialization. All students are required to conduct research on selected aspects of the course topic. *NOTE A,C/See §200.3*

ART HISTORY C491
Advanced Studies in Art History (6 credits)
Prerequisite: Written permission of the Department of Art History. A student repeating Art History C490 registers under Art History C491 for credit provided the subject matter is different.

ART HISTORY C495
Honours Essay (6 credits)
Prerequisite: Third-year* standing in Honours Art History programme. Students are required to prepare a research paper under the supervision of a faculty member.
**fewer than 36 credits remaining in degree programme*

81.80 Cinema and Photography

Chairman
M. FALSETTO, *Assistant Professor*

Associate Professors
T. GIBSON
A. HERMAN
J. LOCKE
T. WAUGH

Assistant Professors
J. LEVITIN
M. MORTON
G. SZILASI
K. TWEEDIE

81.80.1 PROGRAMMES

For detailed information regarding admission to the Cinema programmes, potential students should contact the Department of Cinema and Photography.

All students who have been accepted into Cinema programmes must contact the Department of Cinema and Photography for an appointment with an academic adviser prior to registration.

Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20.

The superscript indicates credit value.

66 BFA Specialization in Film Production

NOTE: It is strongly recommended that students in the Specialization in Film Production have, or acquire, a knowledge of French.

42* Film Studies C211[6], C212[6], C311[3], Film Production C231[6], C332[6], C337[6], C339[3], C432[6]
9 Film Production C334[3], C335[3], C341[3], C438[3], C439[3], C440[3], C441[3], Photography C200[6]
9 Film Studies elective credits (excluding Film Studies C200)**
6 Film Production or Film Studies elective credits (excluding Film Studies C200)**

66 BFA Specialization in Film Studies

NOTE: It is strongly recommended that students in the Specialization in Film Studies have, or acquire, a knowledge of French.

36* Film Studies C211[6], C212[6], C311[3], C312[3], C321[6], C322[6], Film Production C231[6]
6 Film Studies C314[3], C315[3], C418[3], C419[3]***
12 Film Studies elective credits (excluding Film Studies C200)**, Film Production C334[3], C341[3], C441[3]
6 Film Studies C414[3], C415[3], C416[3], C417[3], C418[3], C419[3], C422[3], C423[3], C424[3]
6 400 level Film Studies elective credits.

48 BFA Major in Cinema

Core Requirements

12* Film Studies C211[6], C212[6]
6 Cinema elective credits**

Option A—Film Production

18 **Core**
6 Film Production C231[6]
12 Film Production C331[6] and Film Production electives
or
Film Production C332[6] and C337[6]
6 Film Studies C322[6]
6 Cinema elective credits**

Option B—Film Animation

18 Core
12 Film Animation C312[6], C313[6]
6 Film Animation C414[6]
6 Cinema elective credits or Studio Art elective credits
6 Film Studies C323[3] and Cinema elective credits**

In specific cases and with the written permission of the Animation Coordinator, Film Production C231[6] can be substituted for Film Animation C414[6].

Option C—Film Studies

18 Core
6 Film Studies C322[6]
18 Film Studies elective credits** (excluding Film Studies C200[6])
6 Cinema elective

48 Major in Photography

30 Photography C200[6], C250[6], C300[6], C310[6], C320[6]
6 Photography elective credits
12 Visual Arts elective credits

**Film Studies C211 and C212 should be taken as part of the first 30 credits.*

***Français C373, and/or up to 12 credits in Communication Studies listed in §81.80.4, may be substituted for Film Studies elective credits and must be considered as Film Studies credits for degree purposes.*

****Communication Studies C316 may be substituted for 3 credits in Film Studies and must be considered as Film Studies credits for degree purposes.*

30 Minor in Cinema*

12 Film Studies C211[6], C212[6]
18 Film Studies elective credits. With the or Film Production courses selected in consultation with the Chairman of the Department can also be taken.

**This is a very limited enrolment pro-*

gramme of the Department of for students who want to have some access to Film Production and Film Animation courses.

This Minor cannot be combined with the Minor in Film Animation to form a Double Minor programme.

**Français C373, and/or up to 6 credits in Communication Studies listed in §81.80.4, may be substituted for Film Studies elective credits and must be considered as Film Studies credits for degree purposes.*

30 Minor in Film Animation
12 Film Animation C312[6], CC313[6]
3 Film Studies C323[3]
6 Film Studies C212[6]
9 Chosen from Cinema electives or Studio Art electives in consultation with the Animation Coordinator

This Minor cannot be combined with the Minor in Cinema to form a Double Minor programme.

24 Minor in Film Studies*
12 Chosen from Film Studies C200[6], C211[6], C212[6]
12 Film Studies elective credits**

**This minor cannot be combined with a second Faculty of Fine Arts Minor to form a B.F.A. Double Minor programme. It is intended for students outside the Faculty of Fine Arts. Students in Communication Studies Department degree programmes must have written permission of the Communication Studies Department to enter this programme.*

***Up to 6 credits in Communication Studies listed in §81.80.4 may be substituted for Film Studies elective credits.*

24 Minor in Photography
12 Photography C200[6], C250[6]
6 Photography C300[6], C310[6], C320[6]
6 Visual Arts elective credits

81.80.2 COURSE DESCRIPTIONS

Film Studies:

FILM STUDIES C200
Introduction to Film Studies (6 credits)

A survey acquainting the student with the art of the film. The technical and critical terminology of film studies is discussed. Popular literature on film, such as reviews, is analyzed and the more specialized film literature is introduced. Directors whose films are usually viewed include Antonioni, Bergman, Truffaut, Jutra, Kurosawa, Hitchcock, Ford, Arzner, Hawks, Cukor, Grierson, Lang, Keaton, and Chaplin. Weekly screenings. *NOTE A/See §200.3*

FILM STUDIES C211*
History of Film (6 credits)

A study of the history of film, from its beginning to the 1950's. Changes in the forms, functions, aesthetics, and technology of film are dealt with through the examination of individual works seen in a chronological sequence. Weekly screenings. *NOTE A/See §200.3*

**Students in Cinema programmes should take Film Studies C211 as part of their first 30 credits, if the course is required by the programme.*

NOTE: A French section of this course will be offered under the direction of the Conservatory of Cinematographic Art.

FILM STUDIES C211*
L'histoire du cinéma (6 crédits)

Historique du cinéma, de ses débuts aux années 50. Les changements dans les formes, les fonctions, l'esthétique, et les aspects techniques du cinéma y sont traités par l'examen des oeuvres individuelles vues dans un ordre chronologique. Visionnements hebdomadaires. *NOTE A/See §200.3*

**Les étudiants inscrits aux programmes en cinéma devraient suivre Film Studies C211 parmi les 30 premiers crédits si le cours figure au programme.*

FILM STUDIES C212*
Film Aesthetics (6 credits)

A study of the aesthetics of film. Topics include film criticism, theories about the fundamental elements of film, and comparisons between films which do not depend on their date of production. Problems of film description, interpretation, and evaluation are discussed. Weekly screenings. *NOTE A/See §200.3*

**Students in Cinema programmes should take Film Studies C212 as part of their first 30 credits, if the course is required by the programme.*

FILM STUDIES C311
Montage Aesthetic (3 credits)

Prerequisite: Film Studies C212. An intensive study of montage as an element of film style. Beginning with the work of D.W. Griffith, developments in film editing are followed through French Avant-Garde and Russian films of the 1920's to contemporary film. Weekly screenings.

FILM STUDIES C312
Moving Camera Aesthetic (3 credits)

Prerequisite: Film Studies C212. An intensive study of camera movement as an element of film style. Consideration is given to relations between long takes, deep focus cinematography, and camera movement, as well as to the role of camera movement in creating the significations of film. Films by Murnau, Renoir, Welles, Ophuls, and Snow are included among those viewed and discussed. Weekly screenings.

FILM STUDIES C313
Film Comedy I (3 credits)

Prerequisite: Second-year standing.* An introduction to film comedy in the silent and sound eras. The visual and verbal sources of comedy are analyzed through the study of films ranging from Mack Sennett's and Buster Keaton's to Woody Allen's and Jacques Tati's. Weekly screenings.

**fewer than 66 credits remaining in degree programme.*

FILM STUDIES C314
English-Canadian Film (3 credits)

A survey of English-Canadian film from the earliest surviving works to the present. Topics include fictional, documentary, animated, and experimental film. The role of the National Film Board is discussed. Weekly screenings. *NOTE A/See §200.3*

FILM STUDIES C315
Le cinéma québécois (3 crédits)

Revue des films québécois, mettant principalement l'accent sur les oeuvres contem-

poraines. Les aspects culturels et politiques particuliers de ces films sont examinés. La structure de l'industrie cinématographique du Québec et le rôle de l'Office National du Film y sont traités particulièrement. Visionnements hebdomadaires. *NOTE A/See §200.3*

FILM STUDIES C318
Experimental Film (3 credits)
Prerequisite: Second-year standing.* An examination of experimental film emphasizing developments from the late forties to the present. The New American Cinema is considered in relation to other North American and European experimental cinemas, and examples of the historical antecedents of recent experimental films are viewed and discussed. Weekly screenings.
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C321
The Art of Film Directors (6 credits)
Prerequisite: Film Studies C211 or second-year standing*. A concentrated study of the work of several major directors from different periods in film history. Each director's work is examined in detail with representative films from distinct periods. The films are considered in terms of thematic and stylistic consistency and variation as well as biographical, social, and political factors. Weekly screenings. *NOTE A/See §200.3*
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C322
Contemporary Film (6 credits)
Prerequisite: Film Studies C211 or second-year standing*. This course begins with the New Wave in France and the resurgence of European film in the late 1950's and includes recent trends in documentary, Japanese, and Underground film. The films are studied in the context of major philosophical, political, and cultural developments of the period, as well as contemporaneous developments in other art forms. Weekly screenings. *NOTE A/See §200.3*
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C323
History of Animated Film (3 credits)
Prerequisite: Minor in Film Animation, or second-year standing*. A survey of animated film from the first decade of the twentieth century to the present. Styles of animation ranging from abstract experimental film of the 1920's, to the Disney Studio, to computer animation are viewed and discussed. The contribution of the National Film Board of Canada and particularly that of Norman McLaren is considered. Weekly screenings. *NOTE A/See §200.3*
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C323
Histoire du cinéma d'animation (3 crédits)
Préalable: Inscription à la mineure en cinéma d'animation, ou niveau de scolarité de la deuxième année*. Aperçu général du film d'animation depuis la première décennie du vingtième siècle, jusqu'à nos jours. Les styles d'animation, du film expérimental abstrait des années 20 au Studio Disney, et à l'animation par ordinateur, sont présentés et étudiés. Sont traité aussi l'apport de l'Office National du Film, en particulier celui de Norman McLaren. Visionnements hebdomadaires. *NOTE A/See §200.3*
**moins de 66 crédits à obtenir dans un programme conduisant à un diplôme*

FILM STUDIES C324
Film Script Analysis (3 credits)
Prerequisite: Second-year standing* and six credits in Film Studies. A study of the film script both as a basis for the construction of a film and as an identifiable component of film with its own history and value. Examples from film history as well as the work of major scriptwriters are analyzed, in their written form and through film screenings. The stages of script development from story idea through shooting script are discussed.
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C324
Analyse de scénarios (3 crédits)
Préalable: Niveau de scolarité de la deuxième année* et six crédits en études cinématographiques. Étude de scénarios sur deux plans: d'une part canevas du film et d'autre part élément identifiable ayant une histoire et une valeur propres. Analyse d'exemples tirés de l'histoire du cinéma et de l'oeuvre des plus grand scénaristes, à l'aide des textes eux-mêmes et de visionnements. Les diverses étapes de rédaction du scénario depuis l'idée de départ jusqu'au découpage sont étudiées.
**moins de 66 crédits à obtenir dans un programme conduisant à un diplôme*

FILM STUDIES C326
Topics in National Cinemas (3 credits)
Prerequisite: Second-year standing.* An examination of films as reflections of national cultures. Films by a range of directors representing one or several national groupings such as Japan, Brazil, Eastern Europe, Great Britain, or contemporary West Germany are discussed in the context of their aesthetic, cultural, and political aspirations. Weekly screenings.
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C326
Sujets dans les cinémas nationaux
(3 crédits)
Préalable: Niveau de scolarité de la deuxième année*. Le cinéma reflet des cultures nationales. Les films de nombreux réalisateurs représentant un ou plusieurs regroupements nationaux comme le Japon, le Brésil, l'Europe de l'Est, la Grande-Bretagne, ou l'Allemagne de l'Ouest sont analysés à la lumière des aspirations esthétiques, culturelles, et politiques qu'ils véhiculent. Visionnements hebdomadaires.
**moins de 66 crédits à obtenir dans un programme conduisant à un diplôme*

FILM STUDIES C327
Third World Film (3 credits)
Prerequisite: Second-year standing.* A survey of Third-World films seen in relation to their cultural, political, and aesthetic environment. Films are selected from areas such as Latin America, the Caribbean, Africa, the Middle East, South and East Asia. Weekly screenings.
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C327
Cinéma du Tiers-Monde (3 crédits)
Préalable: Niveau de scolarité de la deuxième année.* Revue des films du Tiers-Monde dans leur cadre culturel, politique, et esthétique. Les films choisis viennent d'Amérique latine, des Antilles, d'Afrique, du Moyen-Orient, d'Asie du Sud et de l'Est. Visionnements hebdomadaires.
**moins de 66 crédits à obtenir dans un programme conduisant à un diplôme*

FILM STUDIES C328
Nonfiction Film Since 1956 (3 credits)
Prerequisite: Second-year standing*. A cross-cultural survey of contemporary developments in the documentary film. The course begins with the precursors of *cinéma-direct* in North America and Europe during the fifties, and extends through the most recent applications of *cinéma-direct* in the emerging cinemas of the Third World. Emphasis is placed on both the artistic achievement and the theoretical, cultural and political context of the nonfiction film during this period of technological and aesthetic transition. Weekly screenings.
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C328
Le documentaire depuis 1956 (3 crédits)
Préalable: Niveau de scolarité de la deuxième année*. Revue pan-culturelle des progrès actuels du documentaire. Le cours va de l'étude des précurseurs du cinéma direct en Amérique du Nord et en Europe durant les années 50 aux plus récentes applications chez les cinémas naissants des pays du Tiers-Monde. L'accent est mis sur l'aspect artistique et le contexte théorique, culturel et politique du documentaire durant cette période de transition technologique et esthétique. Visionnements hebdomadaires.
**moins de 66 crédits à obtenir dans un programme conduisant à un diplôme*

FILM STUDIES C329
Women and Film (3 credits)
Prerequisite: Film Studies C211, or second-year standing*. An examination of films made by women, film criticism written by women, and the portrayal of women in films. These topics are considered within the context of film history and with an emphasis on their relation to ideas in contemporary feminist theory. Weekly screenings. *NOTE A/See §200.3*
**fewer than 66 credits remaining in degree programme*

FILM STUDIES C411
Advanced Studies in Film Genres
(3 credits)
Prerequisite: Film Studies C211, Film Studies C322 or Communication Studies C310. An intensive analysis of one or two film genres, which assumes previous experience in film genre studies. The genre is discussed in terms of its structural characteristics and the ways in which it is a product of specific social situations. Weekly screenings.

FILM STUDIES C413
Film Comedy II (3 credits)
Prerequisite: Film Studies C313 or written permission of the Department of Cinema and Photography, Communication Studies C316. A continuation of Film Studies C313 on a more advanced level. Emphasis is placed on theoretical aspects of film comedy and the films of several major comedy directors. Weekly screenings.

FILM STUDIES C414
Seminar in Film Directors I (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and eighteen credits in Film Studies. A seminar for advanced students which provides for more concentrated study of the work of specific film directors. The director or directors whose films are chosen for study varies from year to year according to the instructor's field of specialization. *NOTE C/See §200.3*

FILM STUDIES C415
Seminar in Film Directors II (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A student repeating Film Studies C414 registers for credit under Film Studies C415 provided the subject matter is different.

FILM STUDIES C416
Seminar in Problems in Film History I
(3 credits)
Prerequisite: Eighteen credits in Film Studies and written permission of the Department of Cinema and Photography. A seminar for advanced students which provides for the study of limited and more specialized areas of film history. The areas chosen for study vary from year to year according to the instructor's field of specialization. *NOTE C/See §200.3*

FILM STUDIES C417
Seminar in Problems in Film History II
(3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A student repeating Film Studies C416 registers for credit under Film Studies C417 provided the subject matter is different.

FILM STUDIES C418
Seminar in English-Canadian Film
(3 credits)
Prerequisite: Film Studies C314, or Communication Studies C316 with written permission of the Department of Cinema and Photography. A seminar in which selected aspects of English-Canadian Film are examined and discussed. The areas chosen for study vary from year to year according to the instructor's field of specialization.

FILM STUDIES C419
Séminaire sur le cinéma québécois
(3 crédits)
Préalable: Film Studies C315, ou Communication Studies C316 avec permission écrite du département de Cinema et Photography. Un séminaire dans lequel des aspects sélectifs du cinéma québécois sont analysés et discutés. Les sujets d'étude choisis varient d'année en année selon la spécialisation de l'instructeur.

FILM STUDIES C422
Seminar in Film Theory and Criticism
(3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and Film Studies C212. Theories including those of Sergei Eisenstein and André Bazin are studied both as explanations of the effects of films and as foundations for film criticism.

The relation of contemporary theoretical writings, such as those in film semiology, to film criticism is discussed. Weekly screenings.

FILM STUDIES C423
Seminar in Comparative Stylistic and Formal Analysis (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and Film Studies C422. An intensive course in the analysis of film style. Films are examined using an analytical projector in order to discover their formal and thematic structures. The contribution of cinematographers, editors, scriptwriters, directors, and performers to the development of a style are discussed. Weekly screenings.

FILM STUDIES C424
Seminar in Film Narrative (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. An examination of conventions of film narrative from a theoretical and historical point of view. Innovations in narrative structure are discussed, and consideration is given to the origin, development, and transformation of narrative traditions in their cultural and aesthetic context.

FILM STUDIES C425
Professional Internship (6 credits)
Prerequisite: Second-year standing* and enrolment in the Cinema Major Option C, Film Studies or Specialization in Film Studies. A Film Studies student who has been employed for not less than 500 hours within the same calendar year in film research, archival work, editing a film publication, or in writing film criticism, may apply for 6 credits on the understanding that the Cinema Section must be satisfied that the work was done under the joint supervision of a qualified professional and a full-time Cinema Faculty member. *NOTE A/See §200.3*
**fewer than 66 credits remaining in degree programme.*

FILM STUDIES C426
Special Topics in Film Studies I (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film studies. *NOTE A,C/See §200.3*

FILM STUDIES C427
Special Topics in Film Studies II (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A student repeating Film Studies C426 registers for credit under Film Studies C427 provided the subject matter is different. *NOTE A/See §200.3*

FILM STUDIES C428
Independent Study I (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A course of independent study in which the student may explore a specific area of Film Studies.

FILM STUDIES C429
Independent Studies II (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A student repeating Film Studies C428 registers for credits under Film Studies C429 provided the subject matter is different.

Film Animation:

NOTE: A student may register for only one course in which films are produced as a course requirement during each academic session. See §81.80.3

FILM ANIMATION C312
Animation I (6 credits)
Prerequisite: Enrolment in the Major in Cinema, Option B, Film Animation, or enrolment in the Minor in Film Animation, or written permission of the Department of Cinema and Photography, with either Film Production C231 or 6 credits in a studio art course. A studio course introducing the theory and practice of film animation. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

FILM ANIMATION C313
Animation II (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, and Film Animation C312. A continuation on a more advanced level of Film Animation C312. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

FILM ANIMATION C414
Animation III (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, Film Animation C312, C313, and Film Studies C323. A continuation on a more advanced level of Film Animation C313. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.

FILM ANIMATION C445
Professional Internship (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and second-year standing* in the Major in Cinema, Option B, Film Animation. A Film Animation student who has been employed within the film industry for not less than 50 hours within the same calendar year may apply for 6 credits on the understanding that the Department of Cinema and Photography must be satisfied that the work was done under the joint supervision of a qualified professional and a full-time Cinema Faculty member. *NOTE A/See §200.3.*
**fewer than 66 credits remaining in degree programme.*

FILM ANIMATION C446
Special Topics in Film Animation I
(3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film animation. *NOTE A,C/See §2003.*

FILM ANIMATION C447
Special Topics in Film Animation II
(3 credits)
Prerequisite: Written permission of the De-

partment of Cinema and Photography. A student repeating Film Animation C446 registers for credit under Film Animation C447 provided the subject matter is different. *NOTE A/See §200.3*

FILM ANIMATION C448
Independent Study I (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A course of independent study in which the student explores a specific area of Film Animation. *NOTE A,C/See §200.3*

FILM ANIMATION C449
Independent Study II (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A student repeating Film Animation C448 registers for credit under Film Animation C449 provided the subject matter is different. *NOTE A/See §200.3*

Film Production:

NOTE: A student may register for only one course in which films are produced as a course requirement during each academic session. See §81.80.3.

FILM PRODUCTION C231
Filmmaking I (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, or enrolment in a Cinema programme, and Film Studies C211 or C212, previously or concurrently. An introductory course in the theory and practice of filmmaking. This course stresses the individual student's creative efforts in producing films in Super 8. Lecture and laboratory. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.

FILM PRODUCTION C331
Filmmaking Studio I (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, enrolment in the Major in Cinema, Option A, Film Production, and Film Production C231. An intermediate course in the theory and practice of filmmaking, emphasizing the creative possibilities available when 16mm lip sync equipment is not used. Formats include 16mm with wild sound, Super 8 with wild sound or with double system or single system lip sync sound, and silent 16mm or Super 8. Students work individually or as small crews, depending on the project and the format.
NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

FILM PRODUCTION C332
Filmmaking II (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, second-year standing* in the Specialization in Film Production or the Major in Cinema, Option A, Film Production, Film Production C231, and Film Production C337, previously or concurrently. An intermediate course in the theory and practice of filmmaking introducing lip-sync 16mm production. Topics emphasized include the creative possibilities of lip-sync 16mm, the development of ideas for films, and the preparation of these ideas for production, budgeting, production planning, and working with a film crew. Students participate in a number of productions and assume a range of roles while beginning to develop their area of specialization within the production team. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.
**fewer than 66 credits remaining in degree programme*

FILM PRODUCTION C334
Problems and Methods of Film Production and Distribution (3 credits)
Prerequisite: Film Production C231. Topics include organizing a film project, financial aspects of film production and distribution, legal problems, film laboratory procedures, and postproduction operations. *NOTE A/See §200.3*

FILM PRODUCTION C335
Acting and Directing Acting for the Screen (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, and either Film Production C332 previously or concurrently, or 6 credits in Theatre Performance. A studio course for Cinema and Theatre students which explores directing and performing for film primarily through exercises recorded on video for analysis. Both performers and directors examine acting and directing acting for the camera through such topics as role preparation, character development, and performance continuity. *NOTE A/See §200.3*

FILM PRODUCTION C337
Technical Aspects of Filmmaking (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, enrolment in the Specialization in Film Production or the Major in Cinema, Option A, Film Production, and Film Production C332 concurrently. Creative and experimental exercises in cinematography, sound, and other components of filmmaking. The complex technology of filmmaking is emphasized as forming a basis for the creative use of the medium. *NOTE A/See §200.3*

FILM PRODUCTION C338
Technical Aspects for Filmmaking Studio and Animation (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, Film Production C331 or Film Animation C313 previously or concurrently. A course in specialized techniques of cinematography, non-sync sound, and graphic and photographic reproduction on film for Filmmaking Studio and Animation students. Creative and experimental exercises utilizing Bolex and advanced Super 8 cameras, the optical printer, sound and editing equipment, the Oxberry animation stand, and techniques such as filtration, titling, and in camera effects.

FILM PRODUCTION C339
Montage in Filmmaking (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, and FMPR C332, previously or concurrently. Fiction and nonfiction film-editing, emphasizing dynamic and continuity cutting and cutting-room techniques. Activities include editing the image in synchronized double system, cutting music and sound effects, preparation for and supervision of the rerecording. *NOTE A/See §200.3*

FILM PRODUCTION C341
Writing for Film (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and Film Production C231. An introduction to writing for film, with special emphasis on the relation of the script to filmmaking. Students are expected to submit work of their own for discussion, analysis, and possible production in filmmaking courses. *NOTE A/See §200.3*

FILM PRODUCTION C431
Filmmaking Studio II (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, enrolment in the Major in Cinema, Option A, Film Production, and Film Production C331. A continuation of Film Production C331.
NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.

FILM PRODUCTION C432
Filmmaking III (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, third-year standing* in the Specialization in Film Production and Film Production C332. A continuation of Film Production C332, with students working on more advanced filmmaking projects. *NOTE A/See §200.3*
NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.
**fewer than 36 credits remaining in degree programme.*

FILM PRODUCTION C433
Filmmaking Workshop (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, third-year standing* in the Major in Cinema, Option A, Film Production, and Film Production C332. A course in the theory and practice of filmmaking in 16mm wild sound and Super 8 formats, with some access to 16mm lip-sync equipment for qualified students. The development of concepts of filmmaking introduced in Film Production C332 is continued using these formats.
NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.
**fewer than 36 credits remaining in degree programme.*

FILM PRODUCTION C438
Cinematography (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography, enrolment in the Specialization in Film Production, or the Major in Cinema, Option A, Film Production, and Film Production C337, previously or concurrently. An advanced course in camera and light for cinema. The contribution of cinematography to filmmaking is investigated through studio and location shooting exercises, lighting exercises and lectures. Subjects such as film stocks, lenses, filters, and camera movement are discussed as elements in the creative process of filmmaking. *NOTE A/See §200.3*

FILM PRODUCTION C439
Advanced Montage in Filmmaking
(3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and Film Production C339. A continuation of Film Production C339.

FILM PRODUCTION C440
Sound for Film (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and Film Production C337. An advanced course in sound and its use in cinema. The contribution of sound to filmmaking is investigated through studio and location recording exercises and through demonstrations.

FILM PRODUCTION C441
Writing for Film II (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and Film Production C341. A continuation of Film Production C341 on a more advanced level.

FILM PRODUCTION C445
Professional Internship (6 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and second-year standing* in the Specialization in Film Production, or the Major in Cinema, Option A, Film Production. A Film Production student who has been employed within the film industry for not less than 500 hours within the same calendar year may apply for 6 credits on the understanding that the Department of Cinema and Photography must be satisfied that the work was done under the joint supervision of a qualified professional and a full-time Cinema Faculty member. *NOTE A/See §200.3*
**fewer than 66 credits remaining in degree programme*

FILM PRODUCTION C446
Special Topics in Film Production I
(3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of film production. *NOTE A,C/See §200.3*

FILM PRODUCTION C447
Special Topics in Film Production II
(3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A student repeating Film Production C446 registers for credit under Film Production C447 provided the subject matter is different. *NOTE A/See §200.3*

FILM PRODUCTION C448
Independent Study I (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A course of independent study in which the student explores a specific area of Film Production. *NOTE A,C/See §200.3*

FILM PRODUCTION C449
Independent Study II (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography. A student repeating Film Production C448 registers for credit under Film Production C449. *NOTE A/See §200.3*

81.80.3 FILMMAKING

Courses in which films are produced as a course requirement are:
Film Animation C312[6], C313[6], C414[6]
Film Production C231[6], C331[6], C332[6], C431[6], C432[6], C433[6]

Photography

PHOTOGRAPHY C200
Foundations in Photographic Vision: Theory and Practice I (6 credits)

Prerequisite: Enrolment in a concentration in the Department of Cinema and Photography or second-year standing* Specialization/Major in the Faculty of Fine Arts.** An exploration of the aesthetics of photography through the rapid accumulation of images in the field and through the study of contact sheets and prints in the studio. Emphasis is placed upon developing an ability to see photographically. Technical procedures, including optical functions and the camera, photographic chemistry, film and paper processing are taught. *NOTE A/See §200.3*

**fewer than 66 credits remaining in degree programme*

***Students enrolled in Specialization/Major in Performing Arts or Inter-related Arts must obtain written permission of the Department.*

NOTE: Students are required to bear the cost of film stock, processing and printing, and other materials.

PHOTOGRAPHY C250
Development of Photographic Traditions (6 credits)

Prerequisite: Enrolment in a BFA degree programme or written permission of the Department of Cinema and Photography. A course tracing the development of photography from its earliest appearance to the present. Issues are dealt with thematically and include ideas about photographs as documents, means of social criticism, forms of personal expression, and sequential imagery. Reference is made to the relationship between photographs and other forms of art and to the social or political contexts which influenced its development.

PHOTOGRAPHY C300
Photographic Vision: Theory and Practice II (6 credits)

Prerequisite: Photography C200 and C250, or written permission of the Department of Cinema and Photography. A studio course directed towards refining darkroom techniques and extending the use of photography as a means of personal expression. Regularly scheduled seminars provide a historical context for contemporary issues. Consideration is given to advanced technical procedures.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOTOGRAPHY C310
Light and the Zone System (6 credits)

Prerequisite: Photography C200 and C250 or written permission of the Department of Cinema and Photography. A studio course dealing with the most essential element of photography - light - through an introduction to the zone system and its application to large and small format. The use of the zone system by contemporary photographers is discussed.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

PHOTOGRAPHY C320
Colour (6 credits)

Prerequisite: Photography C200 and C250 or written permission of the Department of Cinema and Photography. A studio course investigating colour photography and its application by contemporary photographers. Students are introduced to the technical procedures for colour printing, to the theory of colour produced by light and the effects of colour balance.

NOTE: Students are required to bear the cost of film stock, processing, printing and other materials.

PHOTOGRAPHY C400
Advanced Workshop in Photography (6 credits)

Prerequisite: Photography Major and third-year standing* or written permission of the Department of Cinema and Photography. Advanced methods of black and white printing and investigations into the use of colour in photography. Students also explore methods of conservation and presentation related to exhibitions, portfolios, and books.

NOTE: Students are required to bear the cost of film stock, processing, printing, and other materials.

**fewer than 33 credits remaining in degree programme*

PHOTOGRAPHY C461
Special Topics in Photography I (3 credits)

Prerequisite: Written permission of the Department of Cinema and Photography. A course for advanced students which provides an opportunity for the study of limited and more specialized aspects of photography.

PHOTOGRAPHY C462
Special Topics in Photography II (3 credits)

Prerequisite: Photography C461 and written permission of the Department of Cinema and Photography. A student repeating Photography C461 registers for credit under Photography C462 provided the subject matter is different.

PHOTOGRAPHY C470
Professional Internship (6 credits)

Prerequisite: Written permission of the Department of Cinema and Photography and second-year standing* in the Major in Photography. A photography student who has been employed in photography for not less than 500 hours within the same calendar year; or similarly, a student employed for the same amount of time in photographic research, archival work, editing a photographic publication or writing photographic criticism, may apply for 6 credits on the understanding that the Department must be satisfied that the work was done under the joint supervision of a qualified professional and a full-time photography faculty member.

**fewer than 66 credits remaining in degree programme.*

PHOTOGRAPHY C481
Independent Study I (3 credits)

Prerequisite: Written permission of the Department of Cinema and Photography. A course of independent study in which the student explores a specific area of photography.

PHOTOGRAPHY C482
Independent Study II (3 credits)
Prerequisite: Written permission of the Department of Cinema and Photography and Photography C481. A student repeating Photography C481 registers for credit under Photography C482.

81.80.4 COMMUNICATION STUDIES FILM COURSES*

NOTE: for course descriptions see §30.070.

Students enrolled in the Specialization in Film Studies, the Specialization in Film Production, or the Major in Cinema may select 12 credits from the Communication Studies courses listed below as part of their required Film Studies elective credits.

Cinema Minors may select 6 credits from the Communication Studies courses listed below as part of the 18 Cinema credits required in addition to Film Studies C211 and C212. These credits must be considered as Film Studies elective credits for degree purposes.

COMMUNICATION STUDIES C306
Documentary Film (3 credits)

COMMUNICATION STUDIES C307
Hollywood in the Silent Era (3 credits)

COMMUNICATION STUDIES C308
The German Expressionist Movement (3 credits)

COMMUNICATION STUDIES C309
The Revolutionary Soviet Cinema (3 credits)

COMMUNICATION STUDIES C310
The Hollywood Genres (3 credits)

COMMUNICATION STUDIES C311
The Classic French Cinema (3 credits)

COMMUNICATION STUDIES C312
La Nouvelle Vague (3 credits)

COMMUNICATION STUDIES C313
Ingmar Bergman and the Scandinavians (3 credits)

COMMUNICATION STUDIES C314
The Italians, from Neo-Realism to Today (3 credits)

COMMUNICATION STUDIES C315
Shakespeare in the Cinema (3 credits)

COMMUNICATION STUDIES C316
The Canadian Cinema (3 credits)

**Communication Studies credits do not fulfill the BFA degree requirement, which states that 18 credits must be outside the Faculty of Fine Arts and 6 credits must be outside the area of concentration.*

81.90 Design

Chairman
S. HUDSON, *Associate Professor*

Associate Professors
C. GABRIEL-LACKI
J. GOGUEN
L. HAMEL
F. MULVEY

Assistant Professors
J. GERMAN
A. STONYER

81.90.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

72 **BFA Honours in Graphic Design***
6 Art History C250[6]
6 Photography C200[6]
18 Design C200[6], C220[6], C340[6]
6 Design C420[6], Graphic Design C430[6]
36 Graphic Design C260[6], C300[6], C310[6], C320[6], C330[6], C410[6]

Prospective Honours students must apply for entry to the programme after the completion of 30 credits and prior to the commencement of their last 30 credits of the BFA degree.

**Students may apply to Honours standing after completing all required 200-level courses in Graphic Design according to standard described in §16.2.4. In addition to the performance standards described there, students must complete the programme requirements in no more than 4 academic years after the completion of Graphic Design C260.*

54 **Major in Design**
18 Design C200[6], C220[6], C340[6]
6 Design C210[6], Graphic Design C260[6]
6 Design C300[6], Graphic Design C300[6]
6 Art History C250[6]
12 Studio electives in Design or Graphic Design
6 Visual Arts elective

Admission to the Major in Design

a) completion of the 10.6 profile with above average percentile;

b) approval by the Department of Design of a portfolio of relevant materials as described below;

c) an interview;

d) acceptance into the major in Design full-time.

Specifications for the portfolio: between 10-15 samples of work of several kinds. if possible some works should relate either to three-dimensional design, or to graphic design, including drawings, or paintings and samples of other types of design. Slides may be included. Student is responsible for submitting portfolio by the established deadline date, March 15.

81.90.2 COURSE DESCRIPTIONS

NOTE: Students are required to bear the cost of materials in Studio Art courses.

Design:

DESIGN C200
Design I (6 credits)

Prerequisite: Enrolment in the Major in Design or Art C200 or Art C200 exemption. A foundation course stressing the development of a comprehensive visual language to serve as a method of analysis and to foster an understanding of the design process. Students explore organization and order through a sequence of projects concerning colour.

DESIGN C202
Design in the Arts I (3 credits)

Prerequisite: Written permission of the Director of Visual Arts; Major in Dance or second-year standing in a Faculty of Fine Arts programme outside of Studio Art Section. A foundation course in the elements and principles of design for Fine Arts students, with concentrations outside of Studio Art. The focus is on process rather than product creation in this theoretical and practical preparation for design problems in the student's area of concentration.

DESIGN C203
Design in the Arts II (3 credits)

Prerequisite: Design C202. A continuation of Design C202.

DESIGN C210
Materials and Techniques I (6 credits)

Prerequisite: Enrolment in the Major in Design; Design C200 and Design C220, previously or concurrently, or written permission of the Department. A general study of the properties and characteristics of materials as processes commonly used in the manufacturing and industrial sector as applied to specific design projects.

DESIGN C220
Design Drawing I (6 credits)

Prerequisite: Enrolment in the Major in Design; Design C200 and either Design C210 or Graphic Design C260 concurrently. A drawing course specifically for design students to develop drawing skills and promote

an awareness of options in drawing methods and materials available to designers. The course emphasizes analytical drawing, perspective design drawing and projection drawing.

NOTE: Students who have taken Drawing C200 may not take this course for credit.

DESIGN C300
Design II: Interior, Exhibition and Experimental Design (6 credits)

Prerequisite: Design C200, C210, and C220 or Design C200 and written permission of the Department. A continuation of Design C200. The course has both practical and theoretical elements which reflect the comprehensive nature of the concerns of the designer in the fields of interior design, exhibition design, experimental media-design. Emphasis is placed on the identification and resolution of design problems, using the resources and methods of inquiry of the designer.

DESIGN C310
Materials and Techniques II (6 credits)

Prerequisite: Enrolment in the Major in Design and Design C300, previously or concurrently, or written permission of the Department. A continuation of Design C210, using more advanced techniques to deal with complex problems in design. Emphasis is placed on the physical, aesthetic and tactile properties of materials as used in three dimensional design.

DESIGN C320
Methods of Visual Presentation I (6 credits)

Prerequisite: Enrolment in the Major in Design and Design C300, previously or concurrently, or written permission of the Department. A continuation of Drawing C210, with an increased emphasis on the development of the working drawing, the use of "mock-up" in resolving design problems and construction of scaled models as the final means of presenting and communicating a design solution within one of the three prescribed fields of study: interior, exhibition or experimental media-design.

DESIGN C330
Theory and Application (6 credits)

Prerequisite: Enrolment in the Major in Design and Design C300, previously or concurrently, or written permission of the Department. An investigation of the design process as a purposeful activity directed towards initiating change in man-made objects. The course covers traditional and contemporary methods of problem solving through all phases systematically from research to implementatin. Assignments will permit the student to plan and realize a design project and to focus their work in one field: interior, exhibition or experimental media-design.

DESIGN C340
Theories of Design (6 credits)

Prerequisite: Enrolment in the Major in Design or Honours in Graphic Design, or Art History C250, or written permission of the Department. An examination of outstanding and significant emphasis is placed on the development of design as an independent art form in the twentieth century. *NOTE A/See §200.3*

DESIGN C400
Major Studio Project (6 credits)

Prerequisite: Written permission of the Department and Design C410 concurrently. A student-initiated project, based on the previous two years of learning within the 3D Design Programme. The course will be organized in the form of a contractual arrangement between individual students and their faculty adviser. The project is to be related to the field in which the student has concentrated.

DESIGN C410
Major Project: Supervised Essay (6 credits)

Prerequisite: Written permission of the Department and Design C400 concurrently. An extensive essay to provide a theoretical context for the major project. The project is conceived by the student and approved by the departmental adviser who supervises the research and composition of the paper.

DESIGN C420
Methods of Visual Presentation II (6 credits)

Prerequisite: Graphic Design C320 or Design C320 and/or written permission of the Department. A workshop for advanced students in which they may focus on a medium central to their interest in fields within the Graphic Design or Three Dimensional Design programmes. Symbology and typography is an integral part of the content.

NOTE: Students who have credit for Graphic Design C420 may not take this course for credit.

DESIGN C440
Independent Study (6 credits)

Prerequisite: Written permission of the Department of Design. A course of independent study in which the student explores a special area of design.

DESIGN C441
Independent Study (6 credits)

Prerequisite: Written permission of the Department of Design. A course of independent study in which the student explores a specific area of design.

DESIGN C442
Independent Study (6 credits)

Prerequisite: Design C441 and written permission of the Department of Design. A course of independent study in which the student explores a specific area of design.

DESIGN C450
Professional Internship (6 credits)

Prerequisite: Written permission of the Department and second-year standing*. A design student who has been employed in the design profession for not less than 500 hours within the same calendar year, or similarly a student employed for the same amount of time in design research, or in writing design criticism, may apply for 6 credits on the understanding that the Department must be satisfied that the work was done under the joint supervision of a qualified professional and a full-time faculty member of the Department.

**fewer than 66 credits remaining in degree programme*

DESIGN C455
Independent Study (6 credits)

Prerequisite: Written permission of the Department of Design. A course of independent study in which the student explores a specific area of design.

Graphic Design:

GRAPHIC DESIGN C260
Graphic Design I (6 credits)
Prerequisite: Enrolment in the Major in Design and Design C200 and Design C220 previously or concurrently. The tools and techniques of graphic communication with special emphasis on typography. A context for these studies is provided by an inquiry into the cultural and communicative roles of the graphic designer. *NOTE A/See §200.3*

GRAPHIC DESIGN C300
Graphic Design II (6 credits)
Prerequisite: Enrolment in the Major in Design or Honours in Graphic Design and Design C200, C220, and Graphic Design C260. A continuation of Graphic Design C260. The graphic combination of typography, imagery and its reproduction is emphasized in various formats. Portfolio development is required. *NOTE A/See §200.3*

GRAPHIC DESIGN C310
Illustration I (6 credits)
Prerequisite: Enrolment in the Major in Design or Honours in Graphic Design and Graphic Design C300, previously or concurrently, or permission of the Department. Exploration of the ideas, techniques, and materials of the illustrator. The course focuses upon both personal development in drawing and technical facility. The study and practice of typography is an integral part of the course. Students are required to develop their portfolios in illustration.

GRAPHIC DESIGN C320
Display Graphics I (6 credits)
Prerequisite: Enrolment in the Major in Design or Honours in Graphic Design and Graphic Design C300, previously or concurrently, or written permission of the Department. The dynamics of spatial organization as applied to graphic communication. A study of the function of contemporary three-dimensional graphics provides a background for studio experience with structural materials. The study and practice of typography is an integral part of the course. Students are required to develop their portfolios in display graphics.

GRAPHIC DESIGN C330
Sequential Graphics I (6 credits)
Prerequisite: Enrolment in the Major in Design or Honours in Graphic Design and Graphic Design C300, previously or concurrently, or written permission of the Department. The design of brochures, folders, books, magazines, and other visual formats, including slide presentations. Important considerations include clarity of communication and visual integration of sequential units. The study and practice of typography is an integral part of the course. Students are required to develop their portfolios in sequential graphics.

GRAPHIC DESIGN C410
Illustration II (6 credits)
Prerequisite: Graphic Design C310 and written permission of the Section. A continuation of Graphic Design C310. While the course deals with a variety of techniques useful in editorial and advertising illustration, it emphasizes personal development in drawing and encourages experimentation with original ideas. Students are required to develop their portfolios in illustration. *NOTE A/See §200.3*

GRAPHIC DESIGN C430
Sequential Graphics II (6 credits)
Prerequisite: Graphic Design C330 and written permission of the Section. A continuation of Graphic Design C330. Students are required to develop their portfolios in sequential graphics. *NOTE A/See §200.3*

GRAPHIC DESIGN C460
Special Topics in Graphic Design
(6 credits)
Prerequisite: 18 credits in Graphic Design and written permission of the Section. A course for advanced students which provides an opportunity for the study of more specialized areas in Graphic Design.

GRAPHIC DESIGN C461
Special Topics in Graphic Design
(3 credits)
Prerequisite: 18 credits in Graphic Design and written permission of the Section. A course for advanced students which provides an opportunity for the study of more specialized areas in Graphic Design.

GRAPHIC DESIGN C462
Special Topics in Graphic Design
(3 credits)
Prerequisite: Graphic Design C461 and written permission of the Section. A student repeating Graphic Design C461 registers under Graphic Design C462 for credit.

81.100 Modern Dance

Co-ordinator
E. LANGLEY, *Assistant Professor*

81.100.1 PROGRAMME

Students are responsible for satisfying their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

54	**BFA Major in Modern Dance**
12	Dance C200[6], C300[6], C400[6]
12	Dance C210[6], C310[6], C410[6]
18	Dance C211[3], C212[3], C320[6], C420[6]
3	Design C202[3]
3	Theatre Performance C201[3]
6	Music C200[6] or, if exempt, Music C210[6]

81.100.2 COURSE DESCRIPTIONS

DANCE C200
Workshop in Dance I (6 credits)
Prerequisite: Dance C210 previously or concurrently. Enrolment in the Major in Modern Dance or written permission of the Co-ordinator of Dance. Studies in dance, emphasizing the expressive possibilities of movement. Styles of dance are introduced and projects for performance are explored, with consideration being given to the role of visual, acoustic, and verbal elements in dance.

DANCE C210
Body Movement I (6 credits)
Prerequisite: Enrolment in the Major in Modern Dance or written permission of the Co-ordinator of Dance. The development of suppleness, strength, coordination, and kinetic awareness is emphasized. Body movement is discussed and developed as preparation for dance.

DANCE C211
Dance Traditions I (3 credits)
A survey of the history of dance, including relations between older dance traditions and styles of modern dance.

DANCE C212
Dance Traditions II (3 credits)
Prerequisite: Dance C211. A continuation of Dance C211.

DANCE C240*
Principles of Modern Dance (6 credits)
Prerequisite: Written permission of the Co-ordinator of Dance. A survey of technical skills, improvisation and dance composition.
**Students enrolled in the Major in Modern Dance may not take this course for credit.*

DANCE C261
Summer Workshop in Dance I (3 credits)
Prerequisite: Written permission of the Co-ordinator of Dance. Sequences of studio sessions which may include body movement, improvisation, performance technique and choreography.
NOTE: Credits received for this course may not apply towards the Major in Modern Dance.

DANCE C262
Summer Workshop in Dance II (3 credits)
Prerequisite: Written permission of the Coordinator of Dance. A continuation of Dance C261.
NOTE: Credits received for this course may not apply towards the Major in Modern Dance.

DANCE C300
Workshop in Dance II (6 credits)
Prerequisite: Dance C200, and enrolment in Major in Modern Dance, or written permission of the Co-ordinator of Dance. A continuation of Dance C200.

DANCE C310
Body Movement II (6 credits)
Prerequisite: Dance C300, previously or concurrently, and enrolment in Major in Modern Dance, or written permission of the Co-ordinator of Dance. A continuation of Dance C210.

DANCE C320
Choreography I (6 credits)
Prerequisite: Dance C300, previously or concurrently, and written permission of the Co-ordinator of Dance. The organization of movement, space, and time into dance performances. The process of choreographic creation is followed through stages of originating the idea, developing the theme, rehearsing, and performing. Student works are performed.

DANCE C400
Workshop in Dance III (6 credits)
Prerequisite: Dance C300, and enrolment in Major in Modern Dance, or written permis-

sion of the Co-ordinator of Dance. A continuation of Dance C300.

DANCE C410
Body Movement III (6 credits)
Prerequisite: Dance C400, previously or concurrently, and enrolment in Major in Modern Dance, or written permission of the Co-ordinator of Dance. A continuation of Dance C310.

DANCE C420
Choreography II (6 credits)
Prerequisite: Dance C320, enrolment in Major in Modern Dance and written permission of the Co-ordinator of Dance. A continuation of Dance C320.

DANCE C450
Topics in Dance (6 credits)
Prerequisite: Dance C420 previously or concurrently, enrolment in the Major in Modern Dance or written permission of the Co-ordinator of Dance. Advanced choreography where movement shares equal emphasis with all other arts developed into multi-media theatre.

DANCE C451
Topics in Dance (6 credits)
Prerequisite: Written permission of the Co-ordinator of Dance. A student repeating Dance C450 registers for credit under Dance C451 provided the subject matter is different.

81.110 Music

Chairman
W. BOTTENBERG, *Associate Professor*

Professor
B. LAGACE

Associate Professors
W. BOTTENBERG
P. COHEN
S. FRIEDLAND

Assistant Professors
L. ADAMS
K. AUSTIN
A. CROSSMAN
C. ELLISON
A. HOMZY
C. JACKSON

81.110.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements; hence, the following sequences must be read in conjunction with §81.20.

The superscript indicates credit value.

SPECIALIZATION IN MUSIC

The Faculty of Fine Arts offers four Specialization programmes in Music, which consist of 66 credits each.

Students applying for entrance to the specializations are accepted into the Major in Integrative Music Studies. Upon completion of the core requirements, students may apply for transfer into one of the specializations. Acceptance is based on the student's general academic performance in all University courses, but especially in the core courses.

CORE REQUIREMENTS

The required 27-30 credit core is identical for all four Specializations in Music, and comprises the following courses:

3-6	Music C230^6, C231^3
6*	Integrative Music Studies C200^6
6	Integrative Music Studies C310^6
6	Music History C200^6 (or, if exempt, 6 credits in World Music or Music History selected in consultation with the Music Adviser)
6	Music History elective credits

**With permission of the Music Adviser, students may substitute Integrative Music Studies C300^6.*

NOTE: The student is responsible for following the courses required for the completion of his/her particular specialization.

66	**Specialization in Music Performance Studies***
30	Core
12	Music C330^6 or Music Performance Studies C390^6; and Music Performance Studies C490^6
12	Music Performance Studies C311^3, C312^3, C321^3, C322^3, C411^3, C412^3, C421^3, C422^3
6	Music Performance Studies C370^6, C431^3, C432^3 or Music electives except Music C200^6
6	Integrative Music Studies C410^6

**Students interested in pursuing a programme in Early Music should register for the Specialization in Music Performance. Upon completion of the core requirements, these students should select the following options in their Specialization programme:*

Music Performance C311, C312, C411, C412, C441, C442
Music History C311, C312

66	**Specialization in Music Theory/Composition**
27-30	Core
6	Integrative Music Studies C300^6
6-12	Integrative Music Studies C400^6, Contemporary Music Studies C310^6, C321^3, C322^3, C330^6, C411^3, C412^3
6	Integrative Music Studies C320^6, C331^3, C332^3
12-21	Music electives, other than Music C200^6, selected in consultation with the Music adviser

66	**BFA Specialization in Selected Music Studies**
27-30	Core
30-33	Music electives in Specialization selected in consultation with programme adviser
3-6	Music C491^3, C492^3

Courses in the Specialization may include the investigation of areas not normally combined in the music curriculum, including musical perception, theory, composition, pedagogy, literature, and performance.

Eligibility:
Completion of core, with B average or better.

Entrance:
Submission and approval of plan of course work and Special Project (Music C491).

Performance Requirements:
1) B grade average in specialization.
2) B average in programme.
3) C average outside programme.

Review:
Upon completion of the courses in this Specialization, the Special Project is graded by the appropriate Review Committee. The type of evaluation used depends upon the nature of the project: exhibition, concert, recording, or essay.

66 Specialization in Studio Music

27-30 Core
6 Contemporary Music Studies C300[6]
12-18 Contemporary Music Studies C310[6], C401[3], C402[3], C410[6], C411[3], C412[3], Integrative Music Studies C331[3], C332[3]
12-21 Music electives, other than Music C200[6], selected in consultation with the Music adviser

54 BFA Major in Integrative Music Studies

6 Music C210[6] (or, if exempt, music electives chosen in consultation with the programme adviser, Music)
3-6 Music C230[6], C231[3]
12 Integrative Music Studies C200[6]*, C310[6]
6 Music History C200[6] (or, if exempt, World Music or Music History elective chosen in consultation with the programme adviser, Music)
6 Music History electives
18-21 Music electives, other than Music C200[6], selected in consultation with the Music adviser

**With permission of the Music Section, students may substitute Integrative Music Studies C300[6].*

30 Minor in Music

6 Music C210[6] (or, if exempt, music electives chosen in consultation with the programme adviser, Music)
6 Integrative Music Studies C200[6]
18 Music electives chosen in consultation with the programme adviser, Music

A student without the necessary music background must take Music C210[6] as a to other music courses.

All students with prior music study, except those who have received written notification of exemption for Music C210, must contact the Department of Music in order to arrange for a Theory Placement Test. *This must be done at least two weeks prior to registration.*

81.110.2 COURSE DESCRIPTIONS

For specific information regarding entrance to Music courses please see §81.10.6 and §81.10.7.

Music:

MUSIC C200
Musical Literacy (6 credits)
An intensive seminar-workshop in theory and aural training designed to extend musical literacy for the student with limited background.
NOTE: Music students may not take this course for credits.

MUSIC C210
Theory/Aural Training (6 credits)
Prerequisite: Music C200 or exemption. A review of the fundamentals of music theory and aural training. Workshop and laboratory. *NOTE A/See §200.3*

MUSIC C223
Understanding Music (3 credits)
A course in analytical listening for the student who has little or no musical background. The works studied represent the major styles and idioms of Western music. *NOTE A/See §200.3*

MUSIC C230
Private Study BI (6 credits)
Prerequisite: Written permission of the Department of Music. This course offers individual vocal or instrumental instruction in an approved area of music co-ordinated with the student's programme. *NOTE A/See §200.3*

MUSIC C231
Private Study AI (3 credits)
Prerequisite: Written permission of the Department of Music. This course offers individual vocal or instrumental instruction in an approved area of music co-ordinated with the student's programme.

MUSIC C330
Private Study BII (6 credits)
Prerequisite: Music C230 and written permission of the Department of Music. Continuation of Music C230. *NOTE A/See §200.3*
NOTE: Students enrolled in the Specialization in Music Performance Studies register in MPER C390.

MUSIC C331
Private Study AII (3 credits)
Prerequisite: Music C231 and written permission of the Department of Music. Continuation of Music C231.

MUSIC C430
Private Study BIII (6 credits)
Prerequisite: Music C330 and written permission of the Department of Music. Continuation of Music C330. *NOTE A/See §200.3*
NOTE: Students enrolled in the Specialization in Music Performance Studies register in MPER C490.

MUSIC C431
Private Study AIII (3 credits)
Prerequisite: Music C331 and written permission of the Department of Music. Continuation of Music C331.

MUSIC C491
Special Project in Music (3 credits)
Prerequisite: Written permission of the Department of Music. This course is intended for students enrolled in the Specialization in Selected Music Studies. It affords an opportunity for extensive development of the final project under the direction of a Faculty member. The content of this course varies according to the particular area being studied.
NOTE: Students repeating Music C491 register for Music C492 for credit provided the subject matter is different.

MUSIC C492
Special Project in Music (3 credits)
Prerequisite: Music C491 and written permission of the Department of Music. Continuation of Music C491.

Contemporary Music Studies:

CONTEMPORARY MUSIC STUDIES C300
Studio Music I (6 credits)
Prerequisite: Written permission of the Department of Music. A workshop programme in selected Jazz, Rock, Popular, and related

styles. The study includes ensemble playing, improvisation, score reading, jazz theory, and arranging. Practice period/conference. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C310
Electronic Music I (6 credits)
Prerequisite: Written permission of the Department of Music. A seminar-workshop in electronic music composition. Areas covered include tape editing, *musique concrète,* processing of live sounds, recording, and using the modular analogue synthesizer. Classroom and laboratory. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C321
Music Composition I (3 credits)
Prerequisite: Written permission of the Department of Music. A seminar-workshop in traditional and contemporary composition. Emphasis is on the development of the individual's compositional skills. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C322
Music Composition II (3 credits)
Prerequisite: Contemporary Music Studies C321 and permission of the Department of Music. Continuation of Contemporary Music Studies C321. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C330
Jazz Composition I (6 credits)
Prerequisite: INMS C331 and C332 and written permission of the Department of Music. A seminar-workshop in jazz composition. After an examination of components of composition from the jazz repertoire, students write original music based on the Blues, song forms and such extended forms as those in the style of Be-bop, Bossa Nova, Ragtime and Modal Jazz. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C401
Studio Music II (3 credits)
Prerequisite: Contemporary Music Studies C300, or written permission of the Department of Music. An intensive study of selected problems in the development of studio musicianship. The areas covered are determined by specific class needs. Practice period/conference. This is a full-year course. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C402
Studio Music III (3 credits)
Prerequisite: Contemporary Music Studies C401, or written permission of the Department of Music. Continuation of Contemporary Music Studies C401. This is a full-year course. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C410
Electronic Music II (6 credits)
Prerequisite: Contemporary Music Studies C310. Continuation of Contemporary Music Studies C310. Classroom and laboratory. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C411
Seminar-Workshop in Composition I
(3 credits)
Prerequisite: Written permission of the Department of Music. A seminar-workshop in composition. Emphasis in any given year may be in one or more of the following: free composition music for the media, technological or experimental musics. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C412
Seminar-Workshop in Composition II
(3 credits)
Prerequisite: Contemporary Music Studies C411. Continuation of Contemporary Music Studies C411. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C413
Seminar-Workshop in Composition III
(3 credits)
Prerequisite: Contemporary Music Studies C412. Continuation of Contemporary Music Studies C412. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C414
Seminar-Workshop in Composition IV
(3 credits)
Prerequisite: Contemporary Music Studies C413. Continuation of Contemporary Music Studies C413. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C421
Music Composition III (3 credits)
Prerequisite: Contemporary Music Studies C322 and written permission of the Department of Music. Continuation of Contemporary Music Studies C322. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C422
Music Contemporary IV (3 credits)
Prerequisite: Contemporary Music Studies C421 and written permission of the Department of Music. Continuation of Contemporary Music Studies C421. *NOTE A/See §200.3*

CONTEMPORARY MUSIC STUDIES C430
Jazz Composition II (6 credits)
Prerequisite: Contemporary Music Studies C330. Continuation of Contemporary Music Studies C330. *NOTE A/See §200.3*

Integrative Music Studies:

INTEGRATIVE MUSIC STUDIES C200
Theory/Composition/Analysis I (6 credits)
Prerequisite: Music C210 or Music C210 exemption. A workshop in theory, composition, analysis, and related areas. The course explores one or more traditional, contemporary, or experimental approaches to the organization and uses of sound materials. Classroom and laboratory. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C300
Theory/Composition II (6 credits)
Prerequisite: Integrative Music Studies C200 or equivalent. A study that co-ordinates exercises in part-writing and harmony with composition. Students work in a variety of traditional and contemporary forms, styles, and media. Classroom and laboratory. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C310
Aural Perception: Analytical Hearing I
(6 credits)
Prerequisite: Written permission of the Department of Music. Hearing skills are developed through exercises in aural concentration, recall, reproduction, imagination, analysis, and transcription. The sound materials used range from traditional to electronic, natural, and mechanical. Classroom and laboratory. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C320
Comparative Analysis (6 credits)
Prerequisite: Integrative Music Studies C200 or exemption. Development of analytical

methodology. Study of selected works representing various forms and styles from different historical periods. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C331
Instrumentation/Arranging I (3 credits)
Prerequisite: Written permission of the Department of Music. A study of the capabilities and uses of instruments in a variety of musical situations ranging from small ensembles to full orchestra. The areas covered are determined by class needs. Workshop and laboratory. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C332
Instrumentation/Arranging II (3 credits)
Prerequisite: Integrative Music Studies C331. Continuation of Integrative Music Studies C331. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C400
Theory/Composition/Analysis III (6 credits)
Prerequisite: Integrative Music Studies C300, or exemption. A continuation of Integrative Music Studies C300 at a more advanced level. Study of writing techniques of the late nineteenth and twentieth centuries, and work in counterpoint. Classroom and laboratory. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C410
Aural Perception: Analytical Hearing II
(6 credits)
Prerequisite: Integrative Music Studies C310, or written permission of the Department of Music. An intensive study of selected problems in hearing, analyzing, and transcribing music. The course combines individual and group exercises, with structural analysis. Areas to be covered are determined by specific class needs. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C421
Comparative Analysis III (3 credits)
Prerequisite: Integrative Music Studies C320. Continuation of Integrative Music Studies C320. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C422
Comparative Analysis IV (3 credits)
Prerequisite: Integrative Music Studies C421. Continuation of Integrative Music Studies C421. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C431
Instrumentation/Arranging III (3 credits)
Prerequisite: Integrative Music Studies C332. Continuation of Integrative Music Studies C332. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C432
Instrumentation/Arranging IV (3 credits)
Prerequisite: Integrative Music Studies C431. Continuation of Integrative Music Studies C431. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C440
Aural Perception: Analytical Hearing III
(6 credits)
Prerequisite: Integrative Music Studies C410, or written permission of the Department of Music. Continuation of Integrative Music Studies C410. *NOTE A/See §200.3*

INTEGRATIVE MUSIC STUDIES C471*
Independent Study I (3 credits)
Prerequisite: Third-year standing** and written permission of the Department of Music. An independent study for advanced students in a theory/composition area of their own choice. The project must be submitted in writing to, and approved by, the Department of Music.
**Students may count a maximum of 9 credits in independent studies toward their degree programmes.*
***fewer than 36 credits remaining in this degree programme.*

INTEGRATIVE MUSIC STUDIES C472*
Independent Study II (3 credits)
Prerequisite: Third-year standing** and written permission of the Department of Music. A student repeating Integrative Music Studies C471 registers for Integrative Music Studies C472.
**Students may count a maximum of 9 credits in independent studies toward their degree programmes.*
***fewer than 36 credits remaining in this degree programme.*

Music History:

MUSIC HISTORY C200
Music History and Society (6 credits)
A survey of musical styles in their social context, from pre-history to the present day. While emphasis is on the mainstream of the Western tradition, attention is also given to folk, popular, and jazz styles, as well as the music of other cultures. *NOTE A/See §200.3*

MUSIC HISTORY C302
Music of the Baroque (3 credits)
Prerequisite: Music History C200 and Integrative Music Studies C200 or exemptions. Representative works from the early seventeenth to the mid-eighteenth century. The evolution of =ODQ=common practice" is traced in the forms, styles, and performance practices of the great masters and schools.

MUSIC HISTORY C303
Classical History (3 credits)
Prerequisite: Music History C200 and Integrative Music Studies C200 or exemptions. Representative works from the ages of Haydn, Mozart, and Beethoven. Styles, forms, and performance practices are examined within the context of eighteenth-century social and cultural developments.

MUSIC HISTORY C304
Romanticism in Music (3 credits)
Prerequisite: Music History C200 and Integrative Music Studies C200 or exemptions. Representative works from the late eighteenth to early twentieth century. Styles and performance practices are studied as expressions of the romantic consciousness.

MUSIC HISTORY C305
Music in the Twentieth Century (3 credits)
Prerequisite: Music History C200 and Integrative Music Studies C200 or exemptions. Selected areas or movements in twentieth-century music. Topics for consideration may include the work of a major composer, national schools, stylistic schools, or contemporary thought on music.

MUSIC HISTORY C311
Medieval Music History (3 credits)
Prerequisite: Music History C200 and Integrative Music Studies C200 or exemptions.

The development of basic patterns of Western Music is traced in reference to the historical and cultural forces of the Middle Ages. *NOTE A/See §200.3*

MUSIC HISTORY C312
Renaissance Music (3 credits)
Prerequisite: Music History C200 and Integrative Music Studies C200 or exemptions. Musical styles from the mid-fifteenth to the early seventeenth century are examined in the context of the cultural changes which shaped the humanistic age. *NOTE A/See §200.3*

MUSIC HISTORY C314
Jazz History (3 credits)
Prerequisite: Music History C200 and Integral Music Studies C200 or exemption. A study in the historical developments and the personalities that contributed to the evolution of jazz styles.

MUSIC HISTORY C401
Special Study in Music History I (3 credits)
Prerequisite: 12 credits in Music and written permission of the Department of Music. A study of a selected period, area, or contribution. In a given year, the study may examine any significant aspect of Western, non-Western, or other musics. *NOTE A/See §200.3*

MUSIC HISTORY C402
Special Study in Music History II(3 credits)
Prerequisite: Music History C401. Continuation of Music History C401. *NOTE A/See §200.3*

MUSIC HISTORY C471*
Independent Study I (3 credits)
Prerequisite: Third-year standing** and written permission of the Department of Music. An independent study for advanced students to do intensive individual research in a selected period, area or facet of music history. The project must be submitted in writing to, and be approved by, the Department of Music.
**Students may count a maximum of 9 credits in independent studies toward their degree programmes.*
***fewer then 36 credits remaining in the programme.*

MUSIC HISTORY C472*
Independent Study II (3 credits)
Prerequisite: Third-year standing** or written permission of the Department of Music. A student repeating Music History C471, registers for Music History C472.
**Students may count a maximum of 9 credits in independent studies toward their degree programmes.*
***fewer than 36 credits remaining in this degree programme.*

Music in Education:

MUSIC IN EDUCATION C301
Music for Classroom Use I (3 credits)
Prerequisite: Enrolment in the Specialization in Early Childhood Education, Major in Child Studies, or written permission of the Department of Music. This course is designed to give the student a working knowledge of contemporary techniques of group instruction in music. At least one established or experimental method is covered in some depth; for example, Orff, Kodaly, Dalcroze, Martentot, Schafer, Dennis. While the main emphasis is on the cultivation of musicality in the preschool and elementary school child, the implications for music education in general are also explored. Classroom work includes opportunities for demonstration and practice teaching. *NOTE A/See §200.3*

MUSIC IN EDUCATION C302
Music for Classroom Use II (3 credits)
Prerequisite: Music in Education C301 and written permission of the Department of Music. A continuation of Music in Education C301. *NOTE A/See §200.3*

MUSIC IN EDUCATION C430
Studies in Music in Education (6 credits)
Prerequisite: Written permission of the Department of Music. A study of selected problems in music education.

MUSIC IN EDUCATION C431
Seminar-Workshop in Music Education I (3 credits)
Prerequisite: Written permission of the Department of Music. A study of selected problems in the musical education of the child. Among the areas considered are the music curriculum, music and the other arts, concepts of musicality, musical thinking, the education of the musically gifted child, and the musical environment in home and school. Discussion is combined with workshop demonstrations. *NOTE A/See §200.3*

MUSIC IN EDUCATION C432
Seminar-Workshop in Music Education II (3 credits)
Prerequisite: Music in Education C431. Continuation of Music in Education C431. *NOTE A/See §200.3*

MUSIC IN EDUCATION C440
Studies in Music in Education (6 credits)
Prerequisite: Music in Education C430. A student repeating Music in Education C430 registers under Music in Education C440 for credit provided the subject matter is different.

Music Performance Studies:

MUSIC PERFORMANCE STUDIES C200
Orchestra I (6 credits)
Prerequisite: Written permission of the Department of Music. Students enrolled in this course participate in the Concordia Orchestra. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C201
Orchestra I J (3 credits)
Prerequisite: Written permission of the Department of Music. Students enrolled in this course participate in the Concordia Orchestra.

MUSIC PERFORMANCE STUDIES C220
Choir I (6 credits)
Prerequisite: Written permission of the Department of Music. Students enrolled in this course participate in the Concordia Choir. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C221
Choir I J (3 credits)
Prerequisite: Written permission of the Department of Music. Students enrolled in this course participate in the Concordia Choir. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C300
Orchestra II (6 credits)
Prerequisite: Music Performance Studies C200, or C201, and written permission of the Music Department. Continuation of Music Performance Studies C200. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C311
Early Music Ensemble I (3 credits)
Prerequisite: Written permission of the Department of Music. A study, through performance, of representative vocal and instrumental works from the middle ages to the early baroque. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C312
Early Music Ensemble II (3 credits)
Prerequisite: Music Performance Studies C311. Continuation of Music Performance Studies C311. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C320
Choir II (6 credits)
Prerequisite: Music Performance Studies C220 or C221 and written permission of the Music Department. Continuation of Music Performance Studies C220. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C321
Traditional/Contemporary Ensemble I
(3 credits)
Prerequisite: Written permission of the Department of Music. A study, through performance, of selected works from the traditional and contemporary repertoires. The works studied are determined by class needs and the particular skills of each student. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C322
Traditional/Contemporary Ensemble II
(3 credits)
Prerequisite: Written permission of the Department of Music. Continuation of Music Performance Studies C321. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C330
Jazz Improvisation I (6 credits)
Prerequisite: Written permission of the Department of Music and audition. A performance-analysis course that examines the craft of jazz improvisation. A broad spectrum of jazz improvisational styles is examined. Participation in a public recital is required.

MUSIC PERFORMANCE STUDIES C370
Musical Performance Skills I (6 credits)
Prerequisite: Written permission of the Department of Music. A seminar-workshop on specific problems in learning, teaching and developing musical performance skills. Included is the analysis and organization of practice, technique, reading, memory, performance practices. style, interpretation, accompaniment and recital preparation. Particular attention is given to the integration of skill with musical understanding. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C390
Advanced Private Study I (6 credits)
Prerequisite: Written permission of the Department of Music and enrolment in the Specialization in Music Performance Studies. This course offers intensive vocal or instrumental instruction for students specializing in performance. A juried examination is required. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C400
Orchestra III (6 credits)
Prerequisite: Music Performance Studies C300. Continuation of Music Performance Studies C300. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C411
Early Music Ensemble III (3 credits)
Prerequisite: Music Performance Studies C312. Continuation of Music Performance Studies C312. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C412
Early Music Ensemble IV (3 credits)
Prerequisite: Music Performance Studies C411. Continuation of Music Performance Studies C411. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C420
Choir III (6 credits)
Prerequisite: Music Performance Studies C320. Continuation of Music Performance Studies C320. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C421
Advanced Repertoire I (3 credits)
Prerequisite: Written permission of the Department of Music. An intensive study of selected works from the repertoire. Particular consideration is given to acquiring proficiency in conducting, balance, style, interpretation, and related dimensions of higher technique. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C422
Advanced Repertoire II (3 credits)
Prerequisite: Written permission of the Department of Music. Continuation of Music Performance Studies C421. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C430
Jazz Improvisation II (6 credits)
Prerequisite: Written permission of the Department of Music and Music Performance Studies C330. Continuation of Music Performance Studies C330.

MUSIC PERFORMANCE STUDIES C431
Seminar-Workshop in Performance I
(3 credits)
Prerequisite: Written permission of the Department of Music. This course examines selected problems in the development of performance skills. The areas covered are, whenever possible, determined by the specific interests of students. Topics, in any given year, may include: technique, practice, style, interpretation, accompaniment, ensemble, teaching children, the adult student. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C432
Seminar-Workshop in Performance II
(3 credits)
Prerequisite: Music Performance Studies C431, previously or concurrently. Topics vary among sections and also from year to year. Continuation of Music Performance Studies C431. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C433
Seminar-Workshop in Performance III
(3 credits)
Prerequisite: Music Performance Studies C432, previously or concurrently. Topics vary among sections and also from year to year. Continuation of Music Performance Studies C432. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C434
Seminar-Workshop in Performance IV
(3 credits)
Prerequisite: Music Performance Studies C433, previously or concurrently. Topics vary among sections and also from year to year. Continuation of Music Performance Studies C433. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C441
Performance Practice/Documentation
(3 credits)
Prerequisite: Written permission of the Department of Music. A study of historical sources applied directly to performance. Topics covered include ornamentation, improvisation, figured bass, =ODQ=The Doctrine of the Affections, early notation, and bibliography.

MUSIC PERFORMANCE STUDIES C442
Performance Practice/Documentation
(3 credits)
Prerequisite: MPER C441. A continuation of MPER C441.

MUSIC PERFORMANCE STUDIES C470
Musical Performance Skills II (6 credits)
Prerequisite: Written permission of the Department of Music, and Music Performance Studies C370. Continuation of Music Performance Studies C370. *NOTE A/See §200.3*

MUSIC PERFORMANCE STUDIES C471*
Independent Study I (3 credits)
Prerequisite: Written permission of the Department of Music. An independent study intended primarily for advanced students in a performance practice area of their own choice.
**Students may count a maximum of 9 credits in independent studies toward their degree programmes.*

MUSIC PERFORMANCE STUDIES C472*
Independent Study II (3 credits)
Prerequisite: Written permission of the Department of Music. A student repeating Music Performance Studies C471 registers for Music Performance Studies C472.
**Students may count a maximum of 9 credits in independent studies toward their degree programmes.*

MUSIC PERFORMANCE STUDIES C490
Advanced Private Study II (6 credits)
Prerequisite: Written permission of the Department of Music; enrolment in the Specialization in Music Performance Studies; and Music C330 or MPER C390. An approved public recital may be substituted for the juried examination. *NOTE A/See §200.3*

World Music:

WORLD MUSIC C300
Folk Music of the Americas (6 credits)
Prerequisite: Written permission of the Department of Music. A survey of the roots and development of traditional music in the New World. The study examines aboriginal as well as transplanted and hybrid styles; urban and rural musics, with special attention to European and African antecedents; the relationship of folk musics to popular and cultivated styles; transcription and arrangement, ethnomusicological method. *NOTE A/See §200.3*

WORLD MUSIC C310
Music in the Non-Western World (6 credits)
Prerequisite: Written permission of the Department of Music. A survey of the art, religious, and folk music of non-European cultures. The study includes an examination of cross-cultural parallels and influences, instruments, notations, textures, techniques of performance, and problems of interpretation. Illustrated with recordings and slides. *NOTE A/See §200.3*

WORLD MUSIC C320
Folk and Traditional Music I (6 credits)
Prerequisite: Written permission of the Department of Music. The music of a selected culture or community. While in a given year the study may consider the music of any world culture, particular attention is given to the musical heritage of ethnic minorities residing in Canada. *NOTE A/See §200.3*

WORLD MUSIC C330
Folk and Traditional Music II (6 credits)
Prerequisite: Written permission of the Department of Music. Continuation of World Music C320. *NOTE A/See §200.3*

WORLD MUSIC C340
Folk and Traditional Music III (6 credits)
Prerequisite: Written permission of the Department of Music. Continuation of World Music C330. *NOTE A/See §200.3*

81.120 Painting and Drawing

Chairman
J. FOX, *Assistant Professor*

Professors
Y. GAUCHER
G. MOLINARI
A. PINSKY

Associate Professors
R. GORDON
J. KRAUSE
P. LANDSLEY
J. MILLER
I. WHITTOME

Assistant Professors
M. DEWES
L. PLOTEK

81.120.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

60 BFA Major in Art History and Studio Art

6 Art History C240[6] (or, if exempt, an Art History elective)
6 Art C200[6] (or, if exempt, a Studio Art elective)
24* Art History electives
18 Studio Art electives chosen from studio courses offered by:
- Department of Design
- Department of Painting and Drawing
- Department of Printmaking
- Department of Sculpture and Crafts
- studio courses in photography from the Department of Cinema and Photography

6 Art C434[6] or Studio Art elective

**Art C460 may be substituted for 6 credits in Art History.*

60 BFA Major in Studio Art

6 Art History elective credits
6 Art Theory or Art History elective
6 Art C200[6] (or, if exempt, an elective in Studio Art)
42 Studio Art electives* of which 12 credits must be selected from the courses at the 300 and 400 level in a single medium offered by one of the following departments:
- Department of Painting and Drawing
- Department of Printmaking
- Department of Sculpture and Crafts
- photography studio courses chosen from the Department of Cinema and Photography

**Studio courses offered by the Department of Design and the Department of Art Education may be selected as Studio Art electives, but these courses do not satisfy the sequence requirements noted above.*

30 Minor in Art History and Studio Art

6 Art History C240[6] (or, if exempt, an Art History elective)
6 Art C200[6] (or, if exempt, a studio art elective)
6-12 Art History electives
6-12 Studio Art electives selected from studio courses offered by:
- Department of Design
- Department of Painting and Drawing
- Department of Printmaking
- Department of Sculpture and Crafts

81.120.2 COURSE DESCRIPTIONS

Art C200 is a prerequisite for all studio courses and is included in the 90 credits required for the BFA degree. Exemption from Art C200 may be granted to students with an extensive background in Studio Art and to those presenting acceptable portfolios to the Faculty Portfolio Committee at least one week before registration. In such cases, Art C200 will be replaced within the 90 credits by an appropriate Studio Art elective. A portfolio should contain examples of drawing, painting, two- and three-dimemsional design, sculpture and related media.

NOTE: Students are required to bear the cost of materials in Studio Art courses.

Art:

ART C200
Studio Art I (6 credits)
Principles of theory and practice in the visual arts, including explorations in two and three dimensions.

ART C417
Interdisciplinary Art: Process and Technology I* (6 credits)
Prerequisite: Third-year standing** and written permission of the Department. Experimental and creative activities integrating performance and visual media, including light, sound and movement within two- and

three-dimensional installations. The course also includes practical instruction in the uses of video and film related to performance art. *NOTE A/See§200.3*

**fewer than 33 credits remaining in degree programme*

***Students in the Faculty of Fine Arts may apply this course toward satisfying the studio requirements of their concentration.*

ART C420
Special Topics in Studio Art (6 credits)
Prerequisite: 18 credits in studio art and written permission of the Department Chairman. A course for advanced students which provides an opportunity for the study of more specialized areas in studio art.

ART C436
Studio Workshop: Special Studies (6 credits)
Prerequisite: Third-year standing* and written permission of the Department Chairman. This course provides the opportunity for a limited number of students to pursue advanced studies in the studio area. *NOTE A/See §200.3*

**fewer than 36 credits remaining in degree programme*

ART C460
Analysis of Great Works of Art (6 credits)
A course in art principles. Through the formal analysis of selected masterpieces of painting and sculpture, the student is led to a fuller comprehension of the nature of formal order in the arts. *NOTE A/See §200.3*

ART C461
Aesthetic Inquiry in Visual Arts (6 credits)
A course in the application of aesthetic theories to the objects and events of visual arts. Topics include the artistic process as expression, intuition, and imagination. Further consideration is given to the products of painting, sculpture, and graphics, emphasizing various contemporary critical and theoretical stances. *NOTE A/See §200.3*

ART C480
Special Topics in Studio Art (6 credits)
Prerequisite: Art C420 and written permission of the Department Chairman. A student repeating Art C420 registers under Art C480 for credit.

ART C485
Special topics in Studio Art (3 credits)
Prerequisite: 18 credits in Studio Art and written permission of the Department Chairman. A course, for advanced students, which provides an opportunity for the study of more specialized areas in studio art.

ART C486
Special Topics in Studio Art (3 credits)
Prerequisite: Art C485 and written permission of the Department Chairman. A student repeating Art C485 registers under Art C486 for credit.

Painting:

PAINTING C200
Painting I (6 credits)
Prerequisite: Art C200 or Art C200 exemption. An exploration of painting, colour, style, image, visual skills, and the technology of painting materials. *NOTE A/See §200.3*

PAINTING C300
Painting II (6 credits)
Prerequisite: Painting C200. A course in which various media and forms of expressions are explored at the more advanced level. *NOTE A/See §200.3*

PAINTING C400
Painting III (6 credits)
Prerequisite: Painting C300. A continuation of Painting C300. *NOTE A/See §200.3*

PAINTING C420
Seminar/Workshop in Painting (6 credits)
Prerequisite: 18 credits in studio art and written permission of the Department. An advanced studio course in painting.

PAINTING C450
Advanced Studio in Painting (6 credits)
Prerequisite: Painting C400. A continuation of Painting C400. *NOTE A/See §200.3*

Drawing:

DRAWING C200
Drawing I (6 credits)
Prerequisite: Art C200 or Art C200 exemption. An exploration of drawing as a means of expression. Various media are employed to examine and express form, space, figurative, and other graphic images. Drawing from observation, imagination, and memory is included. *NOTE A/See §200.3*

DRAWING C300
Drawing II (6 credits)
Prerequisite: Drawing C200. A drawing course in which various media and forms of expression are explored at the more advanced level. Lectures and studio periods. *NOTE A/See §200.3*

DRAWING C400
Drawing III (6 credits)
Prerequisite: Drawing C300. Continuation of Drawing C300. *NOTE A/See §200.3*

81.130 Printmaking

Chairman
B. WAINWRIGHT, *Associate Professor*

Associate Professors
D. JONES
J. KELLY

Assistant Professor
R. BIGELOW

81.130.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

66	**BFA Specialization in Printmaking***
12	Art History electives
12	Drawing C200[6], C300[6]
12	Printmaking C310[6], C320[6], C330[6]
6	Art C200[6] or, if exempt, Painting C200[6], Photography C200[6], Sculpture C200[6] or studio art elective
	Option A (Intensive)
12	Printmaking C210[6], C220[6], C230[6]
6	Printmaking C410[6], C420[6], C430[6]
6	Printmaking C450[6], Art C440[6]
	Option B (Extensive)
18	Printmaking C210[6], C220[6], C230[6]
6	Printmaking C410[6], C420[6], C430[6], C450[6], Art C440[6]

**All students select courses from the core of 42 credits.*

Option A permits specialization in two of the three areas of printmaking (intaglio, lithography or serigraphy).

Option B requires students to follow courses at the 200 level in all three areas of printmaking. Normally, students applying for entrance to the Specialization are accepted into the Major in Studio Art. It is recommended that full-time students register for 12 credits in Printmaking in their first 30 credits. Upon completion of these credits, students may apply for transfer by submitting their portfolios. Acceptance into the Specialization is based on the student's academic performance at Concordia and especially on the portfolio.

60 **Major in Studio Art**
For description of programme please see Department of Painting and Drawing, §81.120.1.

81.130.2 COURSE DESCRIPTIONS

Art C200 is a prerequisite for all studio courses and is included in the 90 credits required for the BFA degree. Exemption from Art C200 may be granted to students with an extensive background in Studio Art and to those presenting acceptable portfolios to the Faculty Portfolio Committee at least one week before registration. In such cases, Art C200 will be replaced within the 90 credits by an appropriate Studio Art elective. A portfolio should contain examples of drawing, painting, two- and three-dimemsional design, sculpture and related media.

NOTE: Students are required to bear the cost of materials in Studio Art courses.

Art:

For course description of Art C200, please see Department of Painting and Drawing, §81.120.

ART C440
Papermaking: Process and Assemblage
(6 credits)
Prerequisite: 24 credits in studio art. The making and use of paper as related to the Visual Arts. The course examines the physical and structural possibilities of paper, as well as impression, assemblage, and surface use.

Printmaking:

PRINTMAKING C210
Intaglio I (6 credits)
Prerequisite: Drawing C200, previously or concurrently. A study of the basic principles of traditional and contemporary intaglio techniques, such as drypoint, etching and aquatint. *NOTE A/See §200.3*

PRINTMAKING C220
Lithography I (6 credits)
Prerequisite: Drawing C200, previously or concurrently. A study of the basic principles of traditional and contemporary techniques in stone and plate lithography. *NOTE A/See §200.3*

PRINTMAKING C230
Serigraphy I (6 credits)
Prerequisite: Drawing C200, previously or concurrently. A study of the basic principles of screen printing, including direct techniques, photo-screen, and cut film. *NOTE A/See §200.3*

PRINTMAKING C310
Intaglio II (6 credits)
Prerequisite: Printmaking C210. Continuation of Printmaking C210. *NOTE A/See §200.3*

PRINTMAKING C320
Lithography II (6 credits)
Prerequisite: Printmaking C220. Continuation of Printmaking C220. *NOTE A/See §200.3*

PRINTMAKING C330
Serigraphy II (6 credits)
Prerequisite: Printmaking C230. Continuation of Printmaking C230. *NOTE A/See §200.3*

PRINTMAKING C410
Intaglio III (6 credits)
Prerequisite: Printmaking C310. Advanced intaglio techniques.

PRINTMAKING C420
Lithography III (6 credits)
Prerequisite: Printmaking C320. Advanced lithographic techniques.

PRINTMAKING C430
Serigraphy III (6 credits)
Prerequisite: Printmaking C330. Advanced screen printing.

PRINTMAKING C450
The Print in Books, Portfolios and Other Containers (6 credits)
Prerequisite: Printmaking C310 or C320 or C330, previously or concurrently and 18 credits in studio art. The print in books, portfolios, and other containers. Emphasis is placed on relief and intaglio methods and the relationship of type to image.

81.140 Sculpture and Crafts

Chairman
N. WAGNER, *Associate Professor*

Associate Professors
U. COMTOIS
H.W. JONES
J.I. SMITH

Assistant Professors
D. DORRANCE
W. KROL
K. LIPKE

81.140.1 PROGRAMMES

60 **BFA Major in Studio Art**
Please see Department of Painting and Drawing, §81.120.1, for programme description.

81.140.2 COURSE DESCRIPTIONS

Art C200 is a prerequisite for all studio courses and is included in the 90 credits required for the BFA degree. Exemption from Art C200 may be granted to students with an extensive background in Studio Art and to those presenting acceptable portfolios to the Faculty Portfolio Committee at least one week before registration. In such cases, Art C200 will be replaced within the 90 credits by an appropriate Studio Art elective. A portfolio should contain examples of drawing, painting, two- and three-dimensional design, sculpture and related media.

NOTE: Students are required to bear the cost of materials in Studio Art courses.

Art:

For course description of Art C200, please see Department of Painting and Drawing, §81.120.

Sculpture:

SCULPTURE C200
Sculpture I (6 credits)
Prerequisite: Art C200 or Art C200 exemption. An investigation into the methods, materials, and modes of expression in sculpture. Both traditional and contemporary materials and techniques are used. *NOTE A/See §200.3*

SCULPTURE C300
Sculpture II (6 credits)
Prerequisite: Sculpture C200. Continuation of Sculpture C200. *NOTE A/See §200.3*

SCULPTURE C400
Sculpture III (6 credits)
Prerequisite: Sculpture C300. Continuation of Sculpture C300. *NOTE A/See §200.3*

SCULPTURE C450
Independent Study (6 credits)
Prerequisite: Written permission of the Department of Sculpture and Crafts and third-year standing.* This course provides the opportunity for a limited numbers of students to pursue advance studies in sculpture. *NOTE A/See §200.3*

**fewer than 33 credits remaining in degree programme.*

Crafts:

CRAFTS C200
Introduction to Crafts (6 credits)
Prerequisite: Art C200, previously or concurrently, or Art C200 exemption. A studio course introducing ceramics, fibres, and metals as used in contemporary crafts. Students explore the structural, functional, and expressive possibilities of these media. Consideration is given to the history of crafts and the relationship of crafts to other art forms. *NOTE A/See §200.3*

NOTE: Students who receive credit for this course may not take additional 200-level courses in Crafts for credit.

CRAFTS C230
Ceramics I (6 credits)
Prerequisite: Art C200 previously or concurrently or exemption. An introduction to clay as an art medium employing the various techniques of forming, shaping and decorating for firing and glazing. *NOTE A/See §200.3*

CRAFTS C240
Fibre Structures (6 credits)
Prerequisite: Art C200 previously or concurrently or exemption. The use of various processes of fibre construction as art: loom and non-loom weaving, basketry, spinning, dyeing, and primitive fibre techniques. Consideration will be given to the history of the styles, materials, methods and techniques of textiles. *NOTE A/See §200.3*

CRAFTS C260
Printed and Dyed Textile Design (6 credits)
Prerequisite: Art C200 previously or concurrently or Art C200 exemption. Silk screen printing, block printing, batik and resist dyeing as these apply to design for yardage, compositional hangings and soft sculpture.

The emphasis is on drawing, 2-dimensional design and creative exploration in mixed printing and dyeing media.

CRAFTS C270
Small Metals I (6 credits)
Prerequisite: Art C200 previously or concurrently or exemption. An introduction to metal as an art medium for the fabrication of small objects and jewellery emphasizing metalsmithing and elementary casting.

CRAFTS C330
Ceramics II (6 credits)
Prerequisite: Crafts C230. An advanced course in technical and historical research in various ceramic processes with an emphasis on glaze technology and the use of different clay bodies. *NOTE A/See §200.3*

CRAFTS C340
Fibre Structures II (6 credits)
Prerequisite: Fibres C240. Structural processes in two-dimensional and three-dimensional form with equal emphasis on loom and off-loom techniques. Dyeing methods such as ikat, printing and painting on warps are included.

CRAFTS C360
Printed and Dyed Textile Design II
(6 credits)
Prerequisite: Fibres C260. An advanced course in surface design with emphasis on xerox and photo processes as they relate to textiles. Special attention is given to problems such as weight and tension in relief, sculptural forms, and optical illusions. Traditional techniques such as quilting, piecing and trapunto are explored.

CRAFTS C430
Ceramics III (6 credits)
Prerequisite: Crafts C330. The development of a body of personal work and a refinement of specific problems in clay.

CRAFTS C440
Fibre Structures III (6 credits)
Prerequisite: Fibres C340. The refinement of specific problems in fibre structures with an emphasis on the unique direction of each student's work through both group and individually designed projects.

CRAFTS C450
Advanced Workshop in Crafts (6 credits)
Prerequisite: Written permission of the Department and third-year standing*. This workshop provides the opportunity for a limited number of students to pursue advanced studies in Crafts. *NOTE A/See §200.3*
**fewer than 33 credits remaining in the degree programme.*

CRAFTS C460
Printed and Dyed Textile Design III
(6 credits)
Prerequisite: Fibres C240 and Fibres C360. The recent developments in soft sculpture and three-dimensional use of fibres, including the use of synthetic materials such as latex and plastics, as well as natural fibre, cloth and paper. Conventional techniques such as armature building and mold making are included as they apply to extending the possibilities of form in soft materials.

81.150 Theatre

Chairman
D. CHILDS, *Assistant Professor*

Associate Professors
R. ALLISON
J. CAZALET
G. GROSS
W. REZNICEK
K. SLOAN
P. SPENSLEY

Assistant Professors
M. CORVIN
V. KAELIN
B. MACKAY

Post-Retirement

Professor
N. SPRINGFORD

81.150.1 PROGRAMMES

Students are responsible for fulfilling their particular degree requirements; hence, the following sequence must be read in conjunction with §81.20.

The superscript indicates credit value.

Specializations: Students may apply upon satisfactory completion of one year in a Theatre Arts or Pre-Fine Arts programme including courses in their area of proposed specialization. Acceptance is based on the student's performance in the University.

72 BFA Specialization in Theatre Performance

9 Theatre C201^3, C300^6
12 Production C201^3, C202^3, C301^3, C302^3
36 Theatre Performance C201^3, C202^3, C203^3, C204^3, C303^3, C304^3, C306^3, C307^3, C401^3, C402^3, C406^3, C407^3
3 Elective credits in Theatre Arts
12 Elective credits in Fine Arts (including Theatre Arts) of which 6 may not be in Theatre Performance.

72 BFA Specialization in Theatre Scenography

9 Theatre C201^3, C300^6
15 Production C201^3, C202^3, C301^3, C302^3, C303^3, C304^3, C401^3
30 Scenography C201^3, C202^3, C204^3, C205^3, C350^6, C410^6, C430^6
12 Scenography C300^6, C310^6, C330^6, C340^6, C305^3, C315^3
6 Art C200^6 (or, if exempt, Fine Arts elective outside of Scenography.)

66 BFA Specialization in Drama in Education

30 Theatre C201^3, C300^6, Drama in Education C200^6, C300^6, C400^6 or C410^6 Scenography C201^3
6 Theatre Performance elective credits
9 Production C201^3, C202^3 and another 3 credits in Production
21 Theatre Arts elective credits

54 BFA Major in Drama*

15 Theatre C201^3, C300^6, C400^6
6 Production C201^3, C202^3, C304^3, C305^3
6 Theatre Performance elective credits
6 Scenography elective credits
3 Theatre C301^3, C321^3, C401^3, C404^3
18 Theatre Arts elective credits chosen in consultation with a programme adviser, Theatre Arts

**No more than 36 credits in Theatre Arts courses at the 200 level may be applied toward the Major.*

30 Minor in Theatre

9 Theatre C201^3, C300^6
6 Drama in Education, Theatre Performance, and/or Theatre Scenography elective credits
15 Theatre Arts elective credits chosen in consultation with a programme adviser, Theatre Arts

81.150.2 CERTIFICATE IN CREATIVE DRAMA AND THEATRE ARTS

The Department of Theatre offers a Certificate in Creative Drama and Theatre Arts (with Elementary and Secondary options) for the professional development of teachers. The programmes are designed in accordance with the guidelines of the Quebec Ministry of Education. The courses concern both practice and theory and are conducted as workshops and seminars. By recognizing the general educational utility of creative drama and, where appropriate, its many applications to the study of theatre arts, the overall programme integrates the study of these two fields. Pattern B (Elementary) concentrates more on creative drama than does Pattern A (Secondary) in which the focus is shifted somewhat towards Theatre Arts.

Admission Requirements

Entry into the programme requires the candidate to be legally qualified to teach or be engaged in teaching.

In some cases, where teachers have completed studies similar to those of this programme, the Faculty of Fine Arts may also allow pro tanto credits up to a maximum of 12. These courses must not have been applied to a previous degree or certificate.

30 Certificate in Creative Drama and Theatre Arts Secondary—Pattern A

12 Drama in Education C200^6, C400^6
3 Drama in Education C402^3 (supervised internship)
6 Theatre Performance C201^3, C202^3, C203^3, C204^3
3 Scenography C201^3
6 Theatre Arts electives

30	**Certificate in Creative Drama and Theatre Arts Elementary—Pattern B**
18	Drama in Education C200[6], C300[6], C400[6]
3	Drama in Education C401[3] (supervised internship)
6	Theatre Performance C201[3], C202[3], C203[3], C204[3]
3	Theatre Arts elective

81.150.3 COURSE DESCRIPTIONS

Theatre:

THEATRE C201
Theatre Principles and Practices (3 credits)
An introduction to the aesthetics, organization and functions of the theatre as a collaborative art. The course includes attendance at theatre performance.* This course is intended for students with little or no previous experience in theatre. *NOTE A/See §200.3*

**The Department of Theatre endeavours to obtain tickets at the lowest prices available to students.*

THEATRE C300
Theatre History (6 credits)
A study of the development of the physical stage and representative theoretical and dramatic works within their social context from pre-history to the present. Where appropriate, screenings of plays representing the periods under study. *NOTE A/See §200.3*

THEATRE C301
Canadian Theatre (3 credits)
The development of theatre in Canada and the study of selected Canadian plays in text and performance. Topics include amateur and professional theatre, the emergence of theatre programmes in schools and universities, regionalism, the cultural boom of the Sixties and the development of such institutions as festivals, arts councils, and national and local theatre organizations. *NOTE A/See §200.3*

THEATRE C321
Theatre Administration I (3 credits)
An introduction to Theatre Administration including Theatre organization and management, budgeting, box office operation, publicity and public relations. *NOTE A/See §200.3*

THEATRE C322
Theatre Administration II (3 credits)
Prerequisite: Theatre C321 or permission of the Department of Theatre. A continuation of Theatre C321 with additional topics introduced such as financing, contracting, taxation and touring. *NOTE A/See §200.3*

THEATRE C400
Theatre Production Research (6 credits)
Prerequisite: Theatre C300, or written permission of the Department of Theatre. A study of research processes used by directors, designers, actors, theatre critics, and teachers through discussion of individual projects. Skills are developed and applied to the investigation of social, political, and artistic aspects of historical periods providing a rich approach to practical theatre production including works actually in progress.

THEATRE C401
Quebec Theatre (3 credits)
Students should have a working knowledge of French. A study of selected plays of Quebec writers within their cultural milieu. Attendance at both French and English language performances is required. Guest speakers involved in Quebec theatre are invited to supplement lectures. *NOTE A/See §200.3*

THEATRE C403
Advanced Practicum (3 credits)
Prerequisite: Written permission of the Department of Theatre. Special studies in acting, directing, playwriting, design, technical production, or other related areas. *NOTE A,C/See §200.3*

THEATRE C404
Seminar in Theatre (3 credits)
Prerequisite: Written permission of the Department of Theatre. Research in one phase of theatre. A specific topic is chosen each year from such areas as the history of acting, directing, or design aspects of theatre practice or theatre history. *NOTE A,C/See §200.3*

THEATRE C405
Independent Study I (3 credits)
Prerequisite: Written permission of the Department of Theatre. Credit granted for independent projects supervised by a Faculty member. Students are required to submit a paper based on their investigation.

THEATRE C411
Directing I (3 credits)
Prerequisite: Written permission of the Department of Theatre. Examination of and experimentation in staging and production organization. Exercises in visual, structural and conceptual analysis. *NOTE A/See §200.3*

THEATRE C412
Directing II (3 credits)
Prerequisite: Theatre C411 or exemption and written permission of the Department of Theatre. Students direct short plays for studio presentation. Lectures and independent research. *NOTE A/See §200.3*

THEATRE C413
Advanced Practicum (3 credits)
Prerequisite: Written permission of the Department of Theatre. Continuation of Theatre C403. A student who has completed Theatre C403 registers under Theatre C413 for further credit.

THEATRE C414
Seminar in Theatre (3 credits)
Prerequisite: Written permission of the Department of Theatre. Continuation of Theatre C404. A student who has completed Theatre C404 registers under Theatre C414 for further credit.

THEATRE C415
Independent Study II (3 credits)
Prerequisite: Theatre C405 and written permission of the Department of Theatre. Continuation of Theatre C405. Students who have taken Theatre C405 register for Theatre C415 for additional credits.

THEATRE C420
Playwriting Workshop (6 credits)
Prerequisite: Written permission of the Department of Theatre. Study of existing methods of playwriting in relation to stage production. Emphasis is on the creative work of the student guided by the criticism of the class and the instructor in the process of stage realization. Promising scripts will receive workshop production. *NOTE A/See §200.3*

Drama in Education:

DRAMA IN EDUCATION C200
Creative Drama I (6 credits)
The foundations of creative drama. The course deals with the theory and practice of the development of forms of imaginative expressions. Opportunities are provided for practical exercises in sense awareness, spontaneous divergent thinking, and improvised play, as well as for the discussion of group dynamics, creative processes, and to teaching methods for students from pre-kindergarten through secondary school. *NOTE A/See §200.3*

DRAMA IN EDUCATION C201
Drama in Early Childhood Education
(3 credits)
Prerequisite: Enrolment in the Specialization in Early Childhood Education, or the Major in Child Studies, or written permission of the Department of Theatre. The course focuses on the development of the participants' fluency and flexibility in imaginative expression, on theories about the nature and value of dramatic play, on the implementation of drama curricula for young children. Content includes sensory stimulation, imitative role play, make-believe with objects and actions, spontaneous improvisation.

DRAMA IN EDUCATION C202
Stories for Children (3 credits)
Prerequisite: Drama in Education C200, or Drama in Education C201, or 6 credits in Theatre Performance, or written permission of the Department of Theatre. The course focuses on the development of the participants' skills in reading and telling stories, on the creation and evaluation of new stories, on methods of using children's literature as a basis for dramatic play.

DRAMA IN EDUCATION C300
Creative Drama II (6 credits)
Prerequisite: Drama in Education C200, or written permission of the Department of Theatre. Creative drama activities in the integration of music, art, and drama forms. Students explore innovative methods of using audio and visual materials in the classroom. One assignment requires the planning of a classroom activity in which several media are used to foster learning by means of dramatic expression.

DRAMA IN EDUCATION C400
Creative Drama III (6 credits)
Prerequisite: Drama in Education C300, or written permission of the Department of Theatre. An examination of the objectives and content of the drama curriculum, including a study of methods of teaching and assessment appropriate to the discipline. Specific topics include collective creation by the use of creative drama techniques and the function, management, and selection of the school play. *NOTE A/See §200.3*

DRAMA IN EDUCATION C401
Supervised Internship—Elementary Level
(3 credits)
Prerequisite: Drama in Education C400 previously or concurrently or written permission of the Department of Theatre. Based on the curriculum-design project in Drama in Education C400, students teach a curriculum unit which uses drama methods in an elementary setting. The students are supervised and their teaching performance is evaluated on selected criteria related to teaching competence and professional behaviour.

DRAMA IN EDUCATION C402
Supervised Internship—Secondary Level
(3 credits)
Prerequisite: Drama in Education C400 previously or concurrently, or written permission of the Department of Theatre. Based on the curriculum design project in Drama in Education C400, students teach a curriculum unit in creative drama or theatre arts at the secondary level. The students are supervised and their teaching performance is evaluated on selected criteria related to teaching competence and professional behaviour.

DRAMA IN EDUCATION C410
Children's Theatre (6 credits)
Prerequisite: Written permission of the Department of Theatre. Theories of stage presentation for the child audience. Study of scripts, performance techniques, special conditions, and responsibilities.

DRAMA IN EDUCATION C421
Special Topics in Drama in Education I
(3 credits)
Prerequisite: Written permission of the Department of Theatre. This course provides opportunity for the study of specialized aspects of Drama in Education. *NOTE C/See §200.3*

DRAMA IN EDUCATION C422
Special Topics in Drama in Education II
(3 credits)
Prerequisite: Written permission of the Department of Theatre. A student repeating Drama in Education C421 registers under Drama in Education C422 for credit.

Production:

NOTE: Students may not register for more than 3 credits in Production in any one semester, nor more than a total of 24 credits in Production within their degree programmes.

PRODUCTION C201
Theatre Production I (3 credits)
Prerequisite: Enrolment in a Major, Minor, or Specialization in Theatre, or written permission of the Department of Theatre. Students complete assigned tasks in theatre production in the areas of technical production, front of house work or acting. *NOTE A/See §200.3*

PRODUCTION C202
Theatre Production II (3 credits)
Prerequisite: Production C201. A student

repeating Production C201 registers under Production C202 for credit.

PRODUCTION C303
Art Dramatique (3 crédits)
Préalable: Facilité en français et l'approbation du département. Cet atelier pratique vise à sensibiliser les étudiants aux exigences du texte dramatique et aux réalités de la scène. Les membres de ce cours montent et interprêtent une pièce ou quelques actes du théâtre français ou québécois, ou des scènes créées dans le cours. *NOTE A/See §200.3*

PRODUCTION C304
Independent Study I (3 credits)
Prerequisite: Written permission of the Department of Theatre. Credit granted to individual students under the supervision of a Faculty member for practical drama production activity outside the academic Theatre programme. Each completed project includes planning, participation, and a written evaluation of the practical experience. *NOTE A/See §200.3*

PRODUCTION C305
Independent Study II (3 credits)
Prerequisite: Production C304 and written permmission of the Department of Theatre. Continuation of Production C304. *NOTE A/See §200.3*

PRODUCTION C311
Theatre Production III (3 credits)
Prerequisite: Production C202. A student repeating Production C202 registers under Production C311 for credit.

PRODUCTION C312
Theatre Production IV (3 credits)
Prerequisite: Production C311. A student repeating Production C311 registers under Production C312 for credit.

PRODUCTION C411
Theatre Production V (3 credits)
Prerequisite: Production C312. A student repeating Production C312 registers under Production C411 for credit.

PRODUCTION C412
Theatre Production VI (3 credits)
Prerequisite: Production C411. A student repeating Production C411 registers under Production C412 for credit.

PRODUCTION C413
Theatre Production VII (3 credits)
Prerequisite: Production C412. A student repeating Production C412 registers under Production C413 for credit.

PRODUCTION C414
Theatre Production VIII (3 credits)
Prerequisite: Production C413. A student repeating Production C413 registers under Production C414 for credit.

Scenography:

SCENOGRAPHY C201
Introduction to Scenography I (3 credits)
Concepts of theatrical space, style as it relates to theatre design and technology, stage materials, equipment and scenographic communication skills. *NOTE A/See §200.3*

SCENOGRAPHY C202
Introduction to Scenography II (3 credits)
Prerequisite: Scenography C201 or written permission of the Department of Theatre. A continuation of Scenography C201. *NOTE A/See §200.3*

SCENOGRAPHY C203
Stage Make-Up (3 credits)
A practical course in the basics of stage make-up, with emphasis on its use as an aid in the expression of dramatic character. Students are required to supply the make-up for the laboratory sessions.

SCENOGRAPHY C204
Scenography Lab I (3 credits)
Prerequisite: Concurrent registration in Scenography C201. Practical application of design concepts and technical skills emanating from Scenography C201. *NOTE A/See §200.3*

SCENOGRAPHY C205
Scenography Lab II (3 credits)
Prerequisite: Scenography C204 or permission of the Department of Theatre and concurrent registration in Scenography C202. Continuation of Scenography C204. Practical application of design concepts and technical skills emanating from Scenography C202. *NOTE A/See §200.3*

SCENOGRAPHY C300
Scenic Design Techniques (6 credits)
Prerequisite: Scenography C202 and C205 or written permission of the Department of Theatre. Studio work in designing scenery for theatrical productions. Emphasis is on techniques of presentation, including drafting, rendering, and model making. Projects are designed to develop a student's presentation and portfolio development skills. *NOTE A/See §200.3*

SCENOGRAPHY C305
Independent Study I (3 credits)
Prerequisite: Written permission of the Department of Theatre. Credit granted for independent projects in scenography supervised by a faculty member.

SCENOGRAPHY C310
Lighting and Sound (6 credits)
Prerequisite: Scenography C202 and C205 or written permission of the Department of Theatre. The technology of lighting and sound in the theatre. Projects are designed to develop the student's awareness of light and sound and their theatrical application. *NOTE A/See §200.3*

SCENOGRAPHY C315
Independent Study II (3 credits)
Prerequisite: Scenography C305 and written permission of the Department of Theatre. Continuation of Scenography C305. Students who have taken Scenography C305 register for Scenography C315 for additional credits.

SCENOGRAPHY C330
Advanced Technical Problems (6 credits)
Prerequisite: Scenography C202 and C205 or written permission of the Department of Theatre. Advanced theatrical construction techniques with an emphasis on descriptive geometry and specialized shop practices. Projects designed to develop a student's understanding of complex construction problems. *NOTE A/See §200.3*

SCENOGRAPHY C340
Costume Construction (6 credits)
Prerequisite: Scenography C202 and C205 or written permission of the Department of Theatre. Introduction to costume pattern making, cutting and draping, jewelry making and millinery with projects designed to develop the students' skills in these crafts. *NOTE A/See §200.3*

SCENOGRAPHY C350
Seminar in Contemporary Design Theory (6 credits)
Prerequisite: Scenography C202 and C205 or written permission of the Department of Theatre. A consideration of the function and scope of scenography through a study of modern scenographic innovation and contemporary dramatic forms, theatre architecture and scenic design.

SCENOGRAPHY C410
Scenography Design Projects (6 credits)
Prerequisite: Scenography C350 and 12 credits from Scenography C300, C305, C306, C310, C330 and C340, or exemptions; written permission of the Department of Theatre and concurrent registration in Scenography C430. Advanced projects in costume, lighting and /or scenic design or technology. *NOTE A/See §200.3*

SCENOGRAPHY C430
Portfolio Development (6 credits)
Prerequisite: Concurrent registration in Scenography C410. Students will develop portfolios in technology, lighting, costume and/or scenic design.

Theatre Performance:

THEATRE PERFORMANCE C201
Acting I (3 credits)
Emphasis on developing imagination and physical expression, including basics of improvisation. Preparation of scenes and play excerpts for class study. *NOTE A/See §200.3*

THEATRE PERFORMANCE C202
Acting II (3 credits)
Prerequisite: Theatre Performance C201 or written permission of the Department of Theatre. Preparation for the role, including scene and character analysis, and the continued development of imagination and expression. Focus is on the presentation of scenes from plays. *NOTE A/See §200.3*

THEATRE PERFORMANCE C203
Performance Techniques I: Fundamentals of Voice and Movement (3 credits)
An introduction to the use of the body as an acting tool, with emphasis on movement, comprising exercises for vocal and physical flexibility, relief from tension, expressiveness of gesture and body composition, spatial awareness, vocal support, vocal quality, and speech mechanics. *NOTE A/See §200.3*

THEATRE PERFORMANCE C204
Performance Techniques II: Fundamentals of Voice and Movement (3 credits)
Prerequisite: Theatre Performance C203 or written permission of the Department of Theatre. Integration of body and voice, with increased focus on the speech processes. *NOTE A/See §200.3*

THEATRE PERFORMANCE C303
Performance Techniques III: Voice and Speech (3 credits)
Prerequisite: Theatre Performance C204 or written permission of the Department of Theatre. Development of vocal expression, with emphasis on performance analysis.

THEATRE PERFORMANCE C304
Performance Techniques IV: Voice and Speech (3 credits)
Prerequisite: Theatre Performance C303 or written permission of the Department of Theatre. Continued development of vocal expression with emphasis on the study of dialects.

THEATRE PERFORMANCE C306
Acting III (3 credits)
Prerequisite: Theatre Performance C202 and C204 or exemption; written permission of the Department of Theatre. A continuation of Acting II, focusing on an in-depth study of the development of character in relation to the dramatic text beginning with the realistic genre. Presentation of scenes.

THEATRE PERFORMANCE C307
Acting IV (3 credits)
Prerequisite: Theatre Performance C306 and written permission of the Department of Theatre. A continuation of character in the realistic genre moving toward an examination of character within other selected theatrical styles. Presentation of scenes.

THEATRE PERFORMANCE C401
Acting V (3 credits)
Prerequisite: 24 credits in Theatre Performance or exemption, and written permission of the Department of Theatre. A studio course in acting styles with detailed analysis of plays of various periods.

THEATRE PERFORMANCE C402
Acting VI (3 credits)
Prerequisite: Theatre Performance C401 and written permission of the Department of Theatre. Exploration of contemporary approaches to performance style and form.

THEATRE PERFORMANCE C406
Performance Techniques V: Special Movement and Vocal Skills (3 credits)
Prerequisite: Written permission of the Department of Theatre. Fundamentals of special stage techniques for the theatre performer, such as stage combat, dance, and singing. *NOTE A/See §200.3*

THEATRE PERFORMANCE C407
Performance Techniques VI: Special Movement and Vocal Skills (3 credits)
Prerequisite: Theatre Performance C406 and written permission of the Department of Theatre. Continuation of Theatre Performance C406. Advanced study of special techniques for the theatre performer. *NOTE A/See §200.3*

200 Equivalents Index

Note: Recent curricular changes will affect some of the entries in the following lists. A student who suspects that a course he proposes to take may be equivalent to another for which he already has credits should consult his programme adviser.

200.1 Faculty of Arts & Science

Curricular change in the Faculty will affect some of the entries in the following list. A student who suspects that a course he proposes to take may be equivalent to another for which he already has credits should consult his programme adviser.

NOTE A The use of this note after certain course descriptions indicates, that there exists an equivalent course and that students who have the equivalent course may not take the listed course for credits. To find out the equivalents to the listed course refer to the index below.

NOTE B The use of this note after certain language course descriptions indicates that students for whom this is their mother tongue or whose schooling has been conducted in this language will not be admitted to this course.

NOTE C The use of this note after certain course descriptions indicates, that with the permission of the Department a student may take the listed course twice for credits provided that a different subject is dealt with the second time.

Course	Old Numbers and Equivalents
Anthropology	
C211	S211
C321 } C322 }	S421
C362	S462
C364	S464
C365	S465
C367	S467
C368	S458
C394	S497
C395	S498
C325	S425
C368	S468
C369	S458
C397 } C398 }	S495
C434	S434
C459	S459
C460	S461
C494	S494
C499	S499
Applied Social Science	
C212	S212
C321	S321
C351	S351
C400	S400
C413	S413
C421	S421
C431	S431
C441	S441
C442	S442
C451	S451
C452	S452
C453	S453
C454	S454
C455	S455
C461	S461
C471	S471
C472	S472
C481	S481
C482	S482
C485	S485
C486	S486
Arabic	
C481	S411

Course	Old Numbers and Equivalents	
Biology		
C200	300Z	
C201	201A/B, N201	
C203	341A	
C205	N241	
C206	335A/B	
C207	N255	
C208	331A	
C209	333B	
C220	N202	
C222	N380	
C223	N381	
C230	321A/B, N203	Zool N210
C232	327A, N214	
C233	329B	
C234 } C235 } C238	422Z	
C237		Zool N361, 462
C240	311A/B, N204	
C242		Bota N213
C246		Bota N216
C250	N215	
C260	N343	
C270	315A, N253	
C320	N372	
C321	N373	
C330		Zool N215
C331	420Z, N211	
C332		Zool N213
C333	440Z	Zool N320
C335	527A	Zool N331
		Zool N330 (471)
C336		Zool N332
C337	424Z	
C338		Zool N210, N212
C339	522Z	
C341	511A, N254	
C342		Bota N210
C343	415A	
C345	N461	
C347		Bota N231
C348		Bota N320, N360, Biol 410Z
C351	N310	
C352	C461	
C353	N312	Bota N312, N313 Zool N313, N316

Course	Old Numbers and Equivalents		
C355	565A, N314		
C356	315A		
C360	430Z		
C361	435A		
C362	437B		
C363	N344		
C364	N224		
C365	431A, N433		
C370	317B		
C380	343B, N351		
C420	N434		
C421	N435		
C431	567B, N317		
C432	529B		
C433	524Z		
C434	542Z		
C441	N422		
C442	517B, N421		
C450	N416		
C454	N313		
C460	N446		
C461	531A/B		
C462	N350		
C463	N360		
C464	N421	Zool N422	
C465	N445		
C467	433B		
C470	N356		
C490	590Z, N490		

Canadian Studies

C220	INTE C220		
C320	INTE C320		
C321	INTE C321		
C421	INTE C421		
C422	INTE C422		

Chemistry

C205		210	N201
C206		210	N202
C208		300	
C211		342	N211, N213
C221		322	N231
C222		322	N231, N233
C231 } C232 }	C234	336, 338	N241
C233		532	N462
C234	C232	336, 338	N241
C241		312	N222
C242		314	N223
C280		315	
C281		317	
C282		411	
C310		442	N311
C311		344	N350
C312			N352
C313		541	N314
C314		444	N411
C315		442	N311
C316		344	N350
C317			N352
C318		541	N314
C319		444	N411
C321		422, 425	N331
C322		422	N331
C323		425, 427	N336, N337
C326		427	N336, N337
C327		452	N382, N383
C328		523	N338
C329		422	N331
C331			N342
C332		433	N343
C333		445	
C335	C435	525	N346
C338		432	N342
C339		432	N343
C342		412	N323
C343		452	N281
C348		412	N323
C372 } C373 }	C371	491, 493	N371
C380			N380
C390			N354
C391			N350
C399			N354
C419		552	N419
C421			N431
C422			N431
C427			N481
C431		435	N442
C432			N443
C433		532	N463
C434		447	
C435	C335	525	N346
C436		531	
C437	C432		N443
C439		534	N445
C441		415	N422
C442		413	N322
C449			N322
C450		552	N491
C470		590	N471
C471		590	N471
C472			N472
C473		592	
C474		592	
C475		594	N339
C476		594	
C479		590	N471
C490			N453
C492	{ C491 } C498 }		N452
C499			N453

Classics

C211			L211	
C212			L212	
C230		HIST C219	L230	HIST L219
C231		HIST C221	L231	HIST L221
C240		HIST C223	*L240 S212	HIST L223
C241		HIST C224	*L240 S212	HIST L223
C242		HIST C225	*L241 S212	HIST L225
C243	C343	HIST C226, HIST C320	*L241 S214	HIST L225
C254			L254	
C256			L256	
C260			L260	
C264		HIST C227	L264	HIST L227
C265		HIST C229	L265	HIST L229
C266	C264	HIST C227		
C267	C265	HIST C229		
C268			L268	
C269			L269	
C280			L280	Anc. Gr. S210
C320	C220		L220	
C322	C222		L222	
C324	C224		L224	
C325	C225		L225	
C344			L344	
C350	C250		L250	
C351	C251		L251	
C352	C252		L252	
C353	C253		L253	
C380			L380	Anc. Gr. S241
C446	C346	HIST C321	L346	HIST L324
C448		HIST C420	L448	HIST L420
C449		HIST C422	L449	HIST L422

Course	Old Numbers and Equivalents		
C480		L484	
C481		L482	
C482		L486	
C483		L488	
C484		L480	
C485		L480	
C290		L290	LATIN S210
C390		L390	LATIN S240
C490		L494	
C491		L491	
C492		L490	
C493		L492	
C494		L392	
C495		L496	
C496		L498	

*NOTE: Owing to restructuring of Ancient History courses students should consult department when in doubt.

Communication Studies

C255		L255
C275		L275
C278		L278
—		L281
—		L287
C300		L300
C301		L301
C302		L302
C303		L303
C304		L304
C305		L305
C306		L306
C307		L307
C308		L308
C309		L309
C310		L310
C311		L311
C312		L312
C313		L313
C314		L314
C315		L315
C316		L316
C320	C205	L205
C330		L330
C331		L331
C351	C350	
C360		L360
C361		L361
C362		L362
C363		L363
C375		L375
C378		L378
C381		L381
C384		L384
C387		L387
C417		L417
C435		L435
C440		L440
C441		L441
C442		L442
C443		L443
C444 } C445 }		L436
C452		L452
C465		L465
C466		L466
C467		L467
C470 } C471 }	C468	L468
C481		L481
C487		L487
C496 } C497 }	C495	L495

Course	Old Numbers and Equivalents		
Economics			
C200		L202	
C201		L209, S209	
C203		L210, S210	
C221	QUAN C243 }	L404	N375, 375
C222	QUAN C244 }	S207, S375	N275
C250		L304, S221	
C301		L309	
C302		L310, S311	
C303		L311	
C304		L312, S318	
C311		L401	
C312		L403, S440	
C315		S446	
C316		L338	
C317		S304, S305	
C323		S274	
C325		L322	
C326		S270, S271	
C331		L407, S316	
C335		S420	
C336		L436	
C341		S422	
C351		L414, S434	
C352		S438	
C353		S430	
C361		S306	
C370		L434, S460	
C374		S468	
C375		S465	
C377		L307	
C381		L438	
C382		L448	
C383		S429	
C386		S309	
C387		L402	
C391		L333, S307	
C392		L418	
C493		S426, S427	
C396		S308	
C397		S310	
C398		L493, S490	
C399		L494, S491	
C401		L465, S411	
C403		L481, S418	
C405		L451	
C408	C415	L462	
C411		S442	
C412		S443	
C413		L405	
C421		L455, S476	
C422		S477	
C425		S412	
C426		S413	
C428		L471	
C432		L467	
C442		L447, S423	
C443		L449	
C461		L445	
C473		L413	
C476		L464	
C381		S428	
C381,	C481	L438	
C490		L440	
C392		L418	
C493		S426, S427	
C495		L411	
C498		L495, S493	
C499		L496, S494	

Education

Adult Education (previously Andragogy)

C333	C330, C331
C343	C340 or C341 and C342

Course	Old Numbers and Equivalents	
Education		
C260		S202
C305		S312
C306		S313
C371	C370	
C413 } C414 }		S415
C426		S451
C427		
C445		S453
C473	C470	S470
C474		
C490	C497, C498	
C491		
English		
C205		S205
C206		S206
C209		S209
C211	L200, L204	S211
OR		
C212	L200, L204	S211
C213		
C225		S225
C226		S226
C227		S227
C232	L272	
C234	L262	
C237	L260	S237
C238		S238
C239		S239
C249	L237	
C250	L239	
C251		S251
C252		S252
C254	L252, L254	
C255	L280	
C256	L311 L313	S241, S221
OR		
C257	L311	S241, S221
C258	L313	
C259	L246	
C260		S260
C262		S262
C263		S263
C267		S267
C268	L412	
C271	L301	
C273	L303	
C275	L305	S231
C277	L307	
C279		S234
C280		S232
C281	L210	S281
C282	L208	S282
C283	L264	S283
C284		S287
C286	L342	
OR		
C287	L341	
C288	L343	
C290	L352	S244
OR		
C291	L233	
C292	L235	
C295	L355	
C296	L357	
C297	L363 OR L364	
C298	L365	
C300	L346	S348
OR		
C301	L345	S348
C302	L347	

Course	Old Numbers and Equivalents	
C304		S337
C305		S356
C310	L407 L409	S374
OR		
C311	L407	S374
C312	L409	
C314	L410	S466
C315	L424	S333
C316	L413	
C317	L415	
C318		S363
C320	L212, L418	S375
C326	L426	
C327	L425	
C328	L427	S376
C329	L427	
C330		S376
C332	L434	S334
OR		
C333	L433	S334
C334	L435	
C335	L429	S364
C338	L438	S335
OR		
C339	L437	S335
C340	L439	
C342	L442	S336
OR		
C343	L441	S336
C344	L443	
C346	L446	
C349		S365
C350	L450	
C354	L454	
C357		S367
C358		S368
C360	L218	
C362	L220	
C363	L223	
C364	L225	
C376		S343
C377		S344
C378	L236	
C384	L244	
C386		S386
C390	L472	S351
C392	L216	S353
C393		S318
C394	L309	S315
C395	L270	
C398		S311
C425		S425
C426		S426
C427		S427
C430	L402	S460
C432	L410	S466
C434	L481	S476
C435		S478
C436		S479
C438	L420	
C440		S440
C442		S442
C443		S443
C444	L483	
C445	L485	
C448	L487	S448
C449	L489	S449
C456		S456
C457		S457
C459		S459
C460	L240	
C462		S430
C474	L474	

Course	Old Numbers and Equivalents	
C475	L475	
C477	L477	
C479	L479	
C484		S487
C490	L490	
C491	L492	
C492		S492
C493		S493
C494		S496
C495		S497
C496	L496	
C498	L494	
C499		S491

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C455	INTE C455	SCHA S494	

Sociology

C200		L201	S210
C210		L350	S241
C220		L203	
C230		L211	S444
C260		L207	S421
C270		L206	
C272		L214	S442
C280		L204	S471
C282		L202	S470
C300		L330	S436, S437
C310		L300	
C311			S413
C312			S412
C320			S455
C323		L316	
C324		L321	
C325		L401	
C326	C423		
C330		L213	S446
C335			S443
C337		L325	S424
C340		L318	S432
C342			S454
C343		L402	
C344		L343	
C350		Part of L304	
C351		Part of L304	
C353			S440
C354			S441
C357		L323	
C358			S448
C360		L209	S457
C370		L302	S420
C372		L406	S458
C377		L421	
C380		L310	
C382			S445
C390		L360	
C400		L400	S438, S439
C401			S330
C405		L403	S422
C409		L450	S481
C410			S411
C411			S310
C415			S414
C435		L423	S447
C450			S450
C457			S449
C460			S452
C485		L462	

Spanish

C210		L200, L201	S201, S202
C211		L201	
C220, C221	C220	L202, L203, L204	
C250		L208, L209	S241
C251		L209	
C255	C235	L206, L207	
C300		L270, L271	S311
C305		L276, L277	S413
C360		L300	S221
C361		L301	S222
C400		L320, L321, L400	
C405		L401	S451
C410		L410, L411	S452
C415		L420, L421	S453

Course	Old Numbers and Equivalents		
C420		L430, L431	S454
C425		L440	S454
C430		L441	S454
C435		L460	
C440		L450	S456
C445		L451	S455
C450		L470	
C455		L460	
C460			S412
C480		L480	
C481	C485	L481	

Teaching of English as a Second Language

C201		S201	N201	
C203	ESL C203	ESL S203		
C221		S221	N221, N441	Appl Ling 241 or 441, 231 or 431
C231		S231	N231	
C318		S318	N317, N319	
C324	C322, C323	S322, S323	N222, N223	Appl Ling 421 or 221
C341		S341	N241	
C351		S351	N351	Appl Ling 451 or 251
C385	C382, C383, C384	S382, S383, S384	N480, N480, N480	
C413	C411, C412	S411, S412	N311, N312	
C415		S415	N315	
C424	C422, C423	S422, S423	N422, N423	Appl Ling 421 or 221
C431		S431	N431	
C434		S434	N434	
C442		S442	N442	
C433	C479	S479	N479	
C485	C482, C483, C484	S482, S483, S484	N481, N481, N481	
C491		S491	N490	
C492		S492		

Theological Studies

C200	L200
C202	L202
C240	L240
C241	L241
C264	L264
C266	L265
C400	L400
C402	L402
C405	L405
C406	L406
C407	L407
C408	L408
C411	L411
C412	L412
C428	L232
C429	L231
C451	L451
C468	L468
C471	L221
C498	L499
C499	L499

Urban Studies

C280	INTE C280	
C380	INTE C380	HIST C380
C481	INTE C481	
C482	INTE C482	

200.2 Faculty of Commerce and Administration

NOTE A **The use of this note after certain course descriptions indicates, that there exists an equivalent course and that students who have the equivalent course may not take the listed course for credits. To find out the equivalents to the listed course refer to the index below.**

NOTE C **The use of this note after certain course descriptions indicates that with the permission of the Department a student may take the listed course twice for credits provided that a different subject is dealt with the second time.**

Course	Old Numbers and Equivalents			
Accountancy				
C213	N-213	211	313A/B, 300	
C214	N-214	211	315B, 300	
C217			411A/B, 400, 402	
C218	N-216	Man 411 Fin 416	413B, 402	
C220 (120)			320Z	
C221 (121)			320Z	
C323	N313	411	415B, 400	
C325	N314	412	419B, 408	
C403	N421		503A	C421
C407			507B	
C414	N215 N315	Man 411 Fin 416	511B	C425
C422	N422			
C429	N432	431	517B, 508 519B, 508	C432
C432	N433	431		C433
C441	N441	Com. Law 441	513A/B, 504	
C442			515B, 504 (Computer Auditing New Name)	
C451	N451			
C461	N461		509A, 507B	
C407			560Z	
C471			560Z	
Administration				
C201 (101)	N-201		312Z	
C202 (102)	N-202		312Z	
C350			515B	
Finance				
C215	N-215	315,413	407A/B, 408	
C314	N-314	413	409B, 408	
C315	N-315	413		
C417	N-417			
C418	N-418			
C430	N-430	424		
C431	N-431	424		
C440	N-440	423, 426	541B	
C441	N-441	423, 426		
C452	N-450	423, 427	530Z	
C453	N-450	423	530Z	
C455	N-455	427		
C460	N-460	429		
C461	N-461	429		
Management				
C211	N-211	Com Law 211		

Course	Old Numbers and Equivalents		
C213	N-213	Psyc 011, 211	PSYC C200
C214	N-214	Soc 211	
C215	N-215		
C313			413A/B, 414
C315			415B, 414
C340	N-340	430	
C341	N-341	430	
C345	N-345	421	470Z
C346	N-346	421	470Z
C368	N-368	451	503B
C369	N-369	451	
C401			501A
C405			505B
C407			507A
C409			509B
C460	N-460	453	511B
C461	N-461	453	
C462	N-462	432	
C463	N-463	432	
C464	N-464	433	
C465	N-465	433	
C466	N-466	452	
C467	N-467	452	
C475	N-475	211	502Z
C476	N-476	211	502Z
C499			560Z
Marketing			
C213	N-213	211, 411 421	419A/B, 320
C350	N-350	211, 411, 421	421B, 320
C351	ADMI	C350, 515	
C352	N-352	431	
C402	N-402	412, 451	551B
C452	N-342	412, 451	
C453	N-453	221, 222, 431	523B
C454	N-454	414, 461	521A
C463	N-463	481	
C464	N-464		
C485	N-485		
C490	N-490		
C491	N-491		
Quantitative Methods			
C243	N-243	242, Math 241, Stat 242	308Z
C244	N-244	242, Stat 242	308Z

Course	Old Numbers and Equivalents		
C313	N-313	411, QA 411	518Z
C314	N-314	411, QA411	518Z
C353	N-353	Math 415	
C354	N-354	Math 415	
C415	N-415	412	
C423	N-423	421	
C424	N-424	421	
C425	N-425	422	
C426	N-426	422	
C433	N-433		
C445	N-445	442	
C446	N-446	442	

200.3 Faculty of Fine Arts

NOTE A The use of this note after certain course descriptions indicates that there exists an equivalent course and that students who have the equivalent course may not take the listed course for credit. To find out the equivalents to the listed course refer to the index below.

NOTE C The use of this note after certain course descriptions indicates that with the permission of the Section a student may take the listed course twice for credit, provided that a different content is dealt with the second time.

Course	Old Numbers and Equivalents			
Division of Visual Arts				
STUDIO ART				
Art	**Art**	**Fine Arts**		
C200	N-311, N-332		300, 301	
C434	N-433, N-434	433		
C436	N-435, N-436			
C460	N-460	431		
Crafts	**Crafts**	**Cera**	**Art**	
C200	—	—	C432, N432	
C230	C310	C200		
C240	C320			
C330	C410			
Design				
C200	N-370, N-470	490	320	
Drawing				
C200	N-210	410	310, 311	
C300	N-400			
C400	N-401			
Graphic Design				
C260	N371, N471 C200, C250	494		
C300	N373, N374	492		
C410	N475, N476	493		
C430	N473, N474	491		
Painting				
C200	N-211, N-311	411	333, 434	
C300	N-312, N-411	412	435, 536	
C400	N-412, N-413	414		
C450	N-414			
Photography				
C200	N338, N438 C201, C301			
Printmaking				
C210	N-381, N-382 (200)	281	451	
C220	N-381, N-382 (200)	281	451	
C230	N-381, N-382 (200)	281	451	
C310	N-481, N-482 (300)	481		
C320	N-481, N-482 (300)	481		
C330	N-481, N-482 (C300)	481		
C440	ART C440			
Sculpture				
C200	N-321, N-322	221	340, 441	
C300	N-421, N-422	421	542	
C400	N-423, N-424	422		
C450	ART C436			
ART EDUCATION				
Art Education				
C200	N-251	251	400, 401	
C400	N-450	450		
C430	N-430	452		
ART HISTORY				
Art History		**Art**	**Art**	
C232	N-232			
C240	N-240	240	390	
C244	C444 (N444)	444	491	
C338	N-341	241	499	
C339	N-341	241	499	
C342	N-342	242	493, 494, 495	
C343	N-343	243	496	
C346	N-446	446		
C441	N-441			
C442	N-442			
C443	N-443			
C445	N-445			
C455	N-345	245		
C471	N-448	448		
C472	N-449	449		
C480	N-447	447		
C490	N-450			
CINEMA				
Film Animation	**Cinema**	**Cinema**		
C312	C312	312		
C313	C313	313		
C414	C414	414		
Film Production	**Cinema**	**Cinema/ Moving Pictures**		
C231	C311	211		
C332	C411	411		
C334	C334			
C335	C335			

Course	Old Numbers and Equivalents	
C337	C437	431
C339	C433	
C341	C333	
C432	C412	412
C438	C438	
C445	C436	
C446	C450	
C447	C451	
C448	C428	
C449	C429	
Film Studies	**Cinema**	**Cinema/ Moving Pictures**
C200	C200	
C211	C211	257
C212	C212	258
C314	C426	
C315	C427	
C321	C321	
C322	C322	
C323	C323	
C425	C436	
C426	C440	
C427	C441	
C428	C428	
C429	C429	

MUSIC

Course	Old Numbers and Equivalents	
Music		
C210	C221, C222	N211, N212
C223	N233	
C230	N232	
C330	N332	
C430	N432	
C471	N-471	
Contemporary Music Studies	**Music**	
C300	N-338	
C310	C411, C412	
C401	N-481	
C402	N-482	
C410	C413, C414	
C411	N-485	
C412	N-486	
C413	N-487	
C414	N-488	
Integrative Music Studies		
C200	N-235	
C300	N-335	
C310	N-321	
C320	C321, C322	N351, N352
C331	N-449	
C332	N-450	
C400	C401, C402	N-435
C410	C411	N-353
C421	N-355	
C422	N-356	
C431	N-451	
C432	N-452	
C440	C412	N-354
Music History		
C200	N-245	
C311	C301	
C312	C301	
C401	N-468	
C402	N-469	

Course	Old Numbers and Equivalents	
Music in Education		
C301; C302 (C300)	N-421	
C431	N-475	
C432	N-476	
Music Performance Studies		
C200	C201	N-201
C201		N-201
C220	C201	N-201
C221	C201	N-201
C300	C301	N-301
C301		N-301
C311		N-336
C312		N-337
C320	C301	N-301
C321		N-436
C322		N-437
C431		N-465
C432		N-466
C433		N-467
C434		N-468
World Music	**Music**	
C300	N-345	
C310	N-343	
C320	N-360	
C330	N-370	
C340	N-380	

Division of Performing Arts

THEATRE

Course	Old Numbers and Equivalents		
Theatre	**Theatre Arts**	**Theatre Arts**	**Drama**
C201 (C200, C281)			
C300	N-247	247	
C301			351
C321 and C322 (C320)	N-340	440	
C401			431
C403			561
C404			591
C411 (TPER C305)			541
C412 (TPER C405)			
C420	C402		531
Drama in Education	**Theatre Arts**	**Theatre Arts**	**Drama**
C200	N-331	231	523
C400	N-431	431	573
Production			
C201 (C200, C200, C201)			401
C202 (C301)			451
C303			553
C304			421
C305			471
C311 (302)			
C312	C300		
C411 (C401)	C400		551
C412 (C402)			
Scenography			
C201			311
C202			363
C300	N-312	412	
C320	N-315	215	

Course	Old Numbers and Equivalents		
C330 (C301 and C303)			415
C310 (C302)			465
C320	N-315	412	
C330 (C301 and C303)			
C340 (C220, C321)			415
C410 (C400, C420)			
Theatre Performance			
C201, C202			341
C203, C204	N421	421	441
C406 (C402)			

200.6 Faculty of Engineering

NOTE: For OLD SGW 1977/78, OLD LOY and SGW 1976/77, see Undergraduate Calendar 1981/82.

Course	Old Numbers and Equivalents			
Engineering				
C212 } C213 }	C211			
C402 } C403 }	C401			
C412	N-512	INDU C323		
C475	MECH C471			
Computer Engineering				
C411	ENGR C411	N-511		
C413	ELEC C413	N-513		
C414	ELEC C414	N-514		
C416	ELEC C416	N-516		
C417	ELEC C417			
C474	ENGR C474	N-574		
Mechanical Engineering				
ENGR C475	MECH C471	N-571		
Quality Control				
C210	COMP C362			
Computer Science				
C211	CEGEP DATA PROCESSING 911 or 111			
C251	QUAN C423	S251	311	N222
C362	QUAL C210		424	
C455	QUAN C424			

200.7 Credit for Courses with Similar Content

The following courses offered by departments in the Faculties of Arts and Science, Commerce and Administration, and Engineering and Computer Science have elements in common. Students intending to register for courses with statistics content should carefully consult the regulations given below governing credits for these courses.

1. No more than 3 credits will be awarded for courses listed in Group A

Group A
BIOL C222^{3}, HEAL C211^{3}, ECON C221^{3}, GEOG C362^{3}, QUAN C243^{3}, MATH C207^{3}, EMAT C271^{3}
Students in B.Eng. programmes or the Digital Systems Option of the B.Comp.Sc. must take EMAT C271^{3}

2. No more than 3 credits will be awarded for courses listed in Group B

Group B
BIOL C223^{3}, HEAL C215^{3}, ECON C222^{3}, GEOG C363^{3}*, QUAN C244^{3}

3. Students who have received credit for MATH C241^{6} will not receive credit for courses in Group A or Group B, nor may they concurrently register for courses in either Group A or B and MATH C241^{6}.

4. A maximum of 6 credits may be obtained from SOCI C210^{6}, PSYC C317^{6} and the courses listed in Groups A and B.

5. Students in the 'regular' 90-credit degree programme will not receive credits for both MATH C207^{3} and PSYC C315^{3}. Extended Credit Programmes students and Mature Entrants may take for credit both MATH C207^{3} and PSYC C315^{3}, provided they take the courses in that order. Students who have received credit for PSYC C315^{3} and C316^{3} and who intend to register for MATH C241^{6} must first consult with the Psychology Department Undergraduate Programme Adviser.

**This course is no longer offered. Its description will be found in the 1981-82 Undergraduate Calendar.*

Graduate Programmes:

The following graduate programmes are offered at Concordia University. Major options within a programme are also listed. In most cases, courses are given in the late afternoon and evening, or in the evening only, making it possible for both full-time and part-time students to attend. Please contact the graduate programme director at the number indicated for further information.

Department of Applied Linguistics		
M.A.	B. Barkman	879-8196
Department of Art Education		
M.A. & Ph.D.	L. Sherman (Actg.)	879-8595
Diploma in Art Education	S. Horner	879-8593
Diploma in Art Therapy	M. Edwards	879-4364
Department of Art History		
M.F.A.	J. Belisle	879-8520
Department of Biological Sciences		
M.Sc.	S.M. Ruby	879-4220
Department of Building Engineering		
M.Eng. & Ph.D.	D. Feldman	879-7389
Department of Chemistry		
M.Sc. & Ph.D.	P.H. Bird	879-4451
Department of Civil Engineering		
M.Eng. & Ph.D.	O. Pekau	879-7256
Faculty of Commerce and Administration		
M.B.A.	P. Pitsiladis	879-4273
Ph.D. (Administration)	M. Bergier	879-4273
Diploma in Accountancy	H. Mann	879-4273
Diploma in Institutional Administration	H. Mann	879-4273
Diploma in Sports Administration	H. Mann	879-4273
	G. Short	482-0320 Ext. 735
Department of Communication Studies		
M.A. (Media Studies)	John E. O'Brien, s.j.	482-0320 Ext. 377
Diploma in Communication Studies	B. Gilsdorf	482-0320 Ext. 391
Department of Computer Science		
M.Comp.Sc.	T. Radhakrishan	879-4217
Department of Economics		
M.A. & Ph.D.	W.A. Sims	879-4428
Department of Education		
M.A. (Educational Studies)	J. Barakett	879-8424
M.A. & Ph.D. (Educational Technology)	G. Coldevin	879-8104
Diploma in Early Childhood Education	C. Lavers	879-8480
Diploma in Instructional Technology	R. Bernard	879-8550
Department of Electrical Engineering		
M.Eng. & Ph.D.	V. Ramachandran	879-2828
Department of English		
M.A.	R.K. Martin	879-4466
Diploma in English	R.K. Martin	879-4466

Département d'Etudes Françaises		
Diploma in Writing/Translation	A. Jordan	879-7361
Faculty of Fine Arts		
M.F.A.	T. Gibson	879-4198
Diploma in Advanced Music Performance Studies	B. Lagacé	482-0320 Ext. 579 or 614
Department of History		
M.A. & Ph.D.	I. Smith	879-4297
Faculty of Arts & Science Committee-Humanities		
Ph.D. (Humanities) (Interdisciplinary)	J. Drysdale	879-4178 or 879-5944
Library Studies		
Diploma in Library Studies	A. Galler (Actg.)	482-0320 Ext. 422
Department of Mathematics		
M.A. & M.Sc.	W. Byers	482-0320 Ext. 770
M.T.M. (Master in the Teaching of Mathematics)	D. Wheeler	482-0320 Ext. 727
Diploma in the Teaching of Mathematics	G.E. Cohen	879-5834
Department of Mechanical Engineering		
M.Eng. & Ph.D.	R.M.H. Cheng	879-4552
Department of Philosophy		
M.A.	C. Gray	879-7262
Diploma in Theological, Religious & Ethical Studies	R. Moroziuk	482-0320 Ext. 545
Department of Physics		
M.Sc. & Ph.D.	C.S. Kalman	879-4040
Department of Political Science		
M.A. (Public Policy and Public Administration)	A. Ross	482-0320 Ext. 424
Diploma in Community Politics and the Law	M. Danis	879-8064
Department of Psychology		
M.A. (Applied Psychology)	A.B. Doyle	879-4295
M.A. (General Experimental Psychology)	C. White	482-0320 Ext. 496
Ph.D.	R. Wise	879-5978
Department of Religion		
M.A. (History and Philosophy of Religion)	F. Bird	879-7255
M.A. (Judaic Studies)	I. Robinson	879-2827
Ph.D.	M. Despland	879-5933
Diploma in Theological, Religious & Ethical Studies	R. Moroziuk	482-0320 Ext. 545
Department of Sociology		
M.A.	W. Reimer	879-7272
Department of Theological Studies		
Diploma in Theological, Religious & Ethical Studies	R. Moroziuk	482-0320 Ext. 545

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